

INFORMATION PLEASE
ALMANAC
1953

INFORMATION PLEASE ALMANAC 1953

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JOHN KIERAN

Editor

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FOREWORD



Ex oriente, lux! Or in plain English, light comes to us from the East; not only the light of the sun but the light of learning as well. Our alphabet has been inherited from early Greek scholars and our system of numbers from ancient Hindu-Arabian mathematicians. We who produce almanacs—and this is seventh in annual line of the INFORMATION PLEASE ALMANAC—must make a special obeisance toward the East on each publication date because the very title of this tome, our signboard, so to speak, is derived from *al manāḥḥk*, the old Arabian term for “weather” or “climate.” Early almanacs were largely star charts and long-range weather forecasts. In medieval times, when knighthood was in flower, the up-to-date almanac might have been described as (quoting from the esteemed *Encyclopaedia Britannica*) “a book or table containing a calendar of the days, weeks, and months of the year, a register of ecclesiastical festivals and saints’ days, and a record of astronomical phenomena, etc.” But as suits of armor became museum pieces, makers of almanacs began to add sections of no ecclesiastical tinge and much material that had nothing to do with the movements of the stars through space. Now you can find a wealth of information on a wide variety of subjects in any well-ordered almanac. At least, we trust you can find it in this one.

History shows that this matter of producing almanacs has its perils as well as its profits. In England in the days of *Georgius Tertius Rex*, a publisher by the name of Thomas Carnan was three times in as many years thrust into a London jail for issuing and selling almanacs. The charge was that he had infringed on the monopoly granted by royal authority to Oxford and Cambridge universities and the Stationers Company of London for the publication and sale of almanacs within the realm. Against such hardship in the almanac field, however, there may be offered the happier experience in this country of a young man who signed himself Richard Saunders and produced an opus called *Poor Richard’s Almanack* in Philadelphia in 1733. However, it was plainly stated that this almanac was published by “B. Franklin, at the New Printing Office near the Market” and it was no secret that Richard Saunders and Benjamin Franklin were one and the same person. *Poor Richard’s Almanack*, published annually for a quarter of a century, definitely helped to establish Benjamin Franklin as a man of substance, energy and intelligence and a leader in public affairs of those times. The annual publication of the INFORMATION PLEASE ALMANAC has pushed nobody to such extremes. Neither editor nor publisher has been sent to prison like Thomas Carnan, nor has either one been named Minister to France like Benjamin Franklin. We face the future unafraid.

As usual, we owe much to many persons and organizations for aid and comfort in the production of this volume; to Federal, state and city officials across the country, to the staff of the *Encyclopaedia Britannica*, to our long-suffering typesetters, proofreaders and printers, and to the faithful and efficient workers in our own office. They really have put a lot into this book. We hope you get a lot out of it.

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NEWS RECORD OF 1952



(More specific information concerning the Korean War, the Steel Strike, and the 1952 Presidential election is given under separate articles which follow)

JANUARY, 1952

THE WORLD FOUND a hero: a courageous sea captain, Henrik Kurt Carlsen, lifted people's spirits in the opening days of the new year. For six days and nights he stayed alone on his storm-cracked American freighter, the *Flying Enterprise*, which wallowed helplessly on her side off England. Finally, he jumped into the sea forty minutes before the ship sank, and he was rescued. In his native Denmark, they danced to a new waltz, "The Lonely Sailor." In New York, tunesmiths of Tin Pan Alley whipped out a recording: "All hail to the skipper of the *Flying Enterprise*." The following month, Capt. Carlsen was to be forgotten by almost everybody, which was fine with him. . . . Snow in the high Sierras licked a modern gadget—the streamlined train *City of San Francisco* was trapped three days in Donner Pass with 222 passengers. . . . And good old NBC-TV came to the rescue of the millions of Americans who had nothing to do between 7 A.M. and 9 A.M.: a marathon two-hour news show with Dave Garroway functioning as (title courtesy of NBC's Bright Idea Department) the Communicator.

- 5 Churchill arrives in Washington for talks (through Jan. 8) with Truman.
- 7 Eisenhower announces willingness to be Republican candidate for President.
- 10 U. S. freighter *Flying Enterprise* sinks 35 miles off England; Capt. Henrik Kurt Carlsen is rescued.
- 11 U. N. (42-5) established 12-nation disarmament commission.
- 13 Gen. Mark Clark withdraws his candidacy for controversial post as U. S. Ambassador to Vatican.
- 16 Truman asks \$4-to-5-billion tax increase, but budget still won't balance. Trucks rescue 232 passengers on streamliner *City of San Francisco*, snowbound 3 days in California Sierra Nevadas.
- 17 New York ticker-tape parade greets Capt. Henrik Kurt Carlsen. Churchill, addressing Congress, asks U. S., France and Turkey to send "token" forces to Suez Canal zone.
- 21 Truman asks \$85.4-billion budget for 1952-53.
- 25 1,500 tank-led British troops battle

Egyptians at Ismailla and force their surrender.

26 Cairo mobs burn Sheppard's Hotel and millions of dollars' worth of American and British properties.

30 Adm. Lynde D. McCormick appointed Supreme Allied Commander of Atlantic naval forces of NATO, ending U. S.-British argument.

DIED: 2—Jo Davidson, 68; 27—Fannie Ward, over 80.

FEBRUARY, 1952

ALWAYS INGENIOUS, Chicago developed a new type of racket: millions of pounds of ground beef served in some of the best restaurants turned out to have been horse meat all along. One of the worst results was the puns. A Chicago newspaper interviewer claimed to have asked a horse: "Do you think horseburgers are better than beefburgers, and will filly mignon replace steak?" "Neigh!" said the horse. . . . In Nebraska and Georgia, there was an epidemic of wrenching parking meters from the curb and looting them. Police noted that the Dick Tracy comic strip, which sold to 300 papers, had been picturing young hoodlums robbing parking meters. . . . In Washington, D. C., home of political orators, the realistic American University announced a new course in ghostwriting. . . . In San Francisco, a young Chinese who had fought on our side as an intelligence officer in the war found his faith in democracy misplaced. A suburban community voted 174-28 that it did not wish him to occupy the house he had bought for his American-born wife and their baby son.

- 1 Truman appoints Newbold Morris, Republican and former president of New York City Council, to investigate corruption in Federal government.
- 6 King George VI of Britain dies in sleep; his 25-year-old daughter reigns as Queen Elizabeth II.
- 7 Truman names Ellis G. Arnall as Price Stabilization Director, succeeding Michael V. DiSalle, resigned.
- 9 Italy renounces peace treaty as it relates to Russia; says Russia went back on promise to support Italian U. N. membership.
- 11 Newark Airport closed after 3rd plane

- crash in 2 months in nearby Elizabeth, N. J.
- 15 George VI buried in St. George's Chapel of Windsor Castle.
 - 17 Alumni committee finds no subversive-ness or irreligion at Yale University.
 - 18 Willie (the Actor) Sutton, top bank robber, captured in Brooklyn.
 - 19 State Dept. clears John Carter Vincent of disloyalty charges by Sen. Joseph R. McCarthy.
- French National Assembly approves European Army project.
- 22 NATO approves creation of European Army including West German troops.
 - 24 Indo-China rebels force French out of Hoabinh, key highway point defending Hanoi.
 - 25 Senate (46-23) confirms Harry A. McDonald as administrator of RFC.
- Speaker Rayburn bans televising of House committee hearings.
- 27 Senate rejects statehood for Alaska by 1 vote.
 - 29 French National Assembly overthrows Premier Edgar Faure for asking tax increase for rearmament.
- DIED:** 3—Harold L. Ickes, 77; 6—George VI, 56; 9—Norman Douglas, 83; 19—Knut Hamsun, 92.

MARCH, 1952

NEVER BEFORE HAD a President while in office spilled so much gossip as did Truman—in a book called *Mr. President* by his friend William Hillman. People who had been high in his administration got red and angry—notably former Secretary of State Byrnes and former Secretary of Commerce Henry Wallace. . . . Speaking of authors, Mickey Spillane, whose sex-and-crime paper-bound books sold by the millions, announced he had joined Jehovah's Witnesses and would purify his writings henceforth. . . . Back to government, the Office of Price Stabilization was gradually relaxing price ceilings. By this month there was no limit on what could be charged for canned rattlesnake meat, wigs, Easter-egg dye, incense burners, Eskimo handicraft and—newest development—nonedible foods, meaning the phony wax apples you saw in some restaurant windows. . . . Rising star of the TV world was Lucille Ball, whose clowning in *I Love Lucy* was putting in the shade such veteran headliners as Milton Berle and Arthur Godfrey.

- 3 Supreme Court (6-3) upholds New York's Feinberg law barring subversive teachers.
- 4 House (236-162) kills UMT bill.

- 6 Truman asks \$7.9-billion foreign-aid program for coming fiscal year.
- 8 Antoine Pinay forms new Cabinet in France, right of center.
- 10 Fulgencio Batista seizes power for 2nd time in Cuba.
- 11 3-day rail strike against New York Central in Midwest ended by court injunction.
- 13 Senate (53-37) approves Truman tax reform putting collectors under civil service.
- 20 Senate (66-10) ratifies Japanese peace treaty and 3 Pacific security pacts.
- 21-22 Deadliest tornadoes in 20 years kill over 200 in 6 southern states.
- 23 Truman allocates \$4.3 million to aid escapees from Iron Curtain.
- 24 Truman asks Congress to admit 300,000 more European refugees during next 3 years.
- 25 Western Big Three reject Russian proposal for German peace treaty; set preconditions for talks.
- 26 Sen. Joseph R. McCarthy files \$2-million libel suit against Sen. William Benton.
- 27 Trumans move back into White House, under renovation since Nov. 1948.
- 29 President Truman says he will not run again.
- 30 Charles E. Wilson quits as Director of Defense Mobilization, protesting proposed steel wage increase.

APRIL, 1952

NEWEST TELEVISION ACTOR was the atom bomb, which was gaily brought into our parlors, for the first time in history, from the Nevada testing grounds. TV technical troubles made the mighty explosion seem so misty and tame that we viewers forgot about the hundred thousand Japanese that the bomb's forebears had wiped out. . . . Anyway, there were more urgent things to talk about, such as women's hair-do's—the horsetail vs. the poodle. Elizabeth Arden, the beauty expert, said no one in the world loved dogs more than she did, but "why on earth would a lovely woman want to cut her hair to imitate the canine species?" But Claudette Colbert, the actress, said the poodle cut was nothing so new: she'd had a "half-baked poodle for fifteen years." And speaking of hair, the secret came out that 21 per cent of the adult population now colors its hair—including 3 million men—with much of this hirsute artistry being accomplished at home.

- 2 Queen Juliana and Prince Bernhard of Netherlands arrive in Washington for month visit of U. S. and Canada.

- 3 Atty. Gen. McGrath ousts Newbold Morris as corruption investigator; Truman gets McGrath's "resignation." Judge James P. McGranery succeeds McGrath.
 - 4 Frank Costello, gambler, found guilty of contempt of Senate Crime Investigating Committee.
 - 5 5th air crash in metropolitan New York in 4 months kills 2 in plane and 3 on ground in Queens.
 - 8 Truman seizes steel industry to prevent nation-wide strike.
 - 10 Truman recommends putting 22,000 postmasters, customs officials and U. S. marshals under Civil Service.
 - 11 Airliner sinks off Puerto Rico; 52 lost, 17 saved.
 - 13 FCC ends 3½-year ban on new TV stations; will allow 2,053 more.
 - 14 U. N. Security Council refuses to hear Tunisia's complaint against France.
 - 16 Truman makes aerial survey of worst Missouri-Mississippi flood in history.
 - 22 Troops enter atomic blast area for 1st time in Nevada test.
 - 24 5-day mutiny of 171 convicts ends at Southern Michigan State Prison at Jackson; prisoners win demands.
 - 26 Destroyer-minesweeper *Hobson* sinks in mid-Atlantic after collision with aircraft carrier *Wasp*; 175 lost.
 - 28 Gen. Matthew B. Ridgway appointed to succeed Eisenhower as Supreme Commander, Allied Powers, Europe; Gen. Mark W. Clark succeeds Ridgway as commander in Korea.
Supreme Court (6-3) upholds New York program of releasing public-school students 1 hour a week for religious instruction.
War with Japan ends officially; Japan becomes sovereign nation.
 - 29 Federal Judge David A. Pine invalidates Truman's seizure of steel mills; USW goes on strike; steel industry closed.
- DIED:** 1—Ferenc Molnar, 74; 21—Leslie Banks, 61; 21—Sir Stafford Cripps, 62.

MAY, 1952

WE HAD ALL BEEN so happy 'way back last July when the Korean truce talks started: the Reds were quitting, the troops could come home. But the Reds stalled for ten long months. Now, in this month of May, we told them: We have made our last concession; do you really want a truce? From the Reds came an astonishingly defiant reply. The Communist prisoners-of-war whom we held on Kojé Island kidnaped Gen. Dodd, the American commandant. Ignominiously we bargained with the Red POW's to rescue him. No

truce. . . . Our college boys went haywire in the wildest craze since they ate goldfish before the war. "Panty raids" swept the nation's campuses—boys storming the girls' dormitories to seize souvenir garments. Fire hoses and cops's sticks quelled the manic mobs. But Yale and Harvard did these things better. Yale's first-class riot started over a quarrel between two ice-cream men: a Good Humor and a Humpty Dumpty. Harvard's even bigger riot came when the boys were nominating Pogo, the comic-strip character, for President.

- 7 Bookmaker Harry Gross testifies he bribed close friends of New York's ex-Mayor William O'Dwyer.
U. S. abolishes controls on installment buying.
 - 10 Communist war prisoners on Kojé Island release Brig. Gen. Francis T. Dodd after holding him captive since May 7.
 - 21 3-year labor dispute ends as railroads and unions accept government-suggested wage compromise; Truman orders return of railroads to private owners (May 23).
British Parliament (305-283) approves Churchill's denationalization of trucking industry.
 - 26 Western Allies and West Germany sign peace contract at Bonn.
Supreme Court (9-0) revokes New York State ban on film *The Miracle*.
 - 27 6 nations sign European Defense Community Treaty at Paris.
 - 28 Jacques Duclos, French Communist boss, jailed in Red riots against Gen. Ridgway.
 - 29 Truman vetoes bill to give offshore oil rights to states.
- DIED:** 8—Rollin Kirby, 77; 9—Canada Lee, 45; 15—Albert Basserman, 85; 21—John Garfield, 39; 24—Fulton Oursler, 59.

JUNE, 1952

NOT IN A CENTURY HAD A President of the United States gotten such a calling down at the hands of the Supreme Court as did Harry S. Truman. He was told he had acted unconstitutionally and had exceeded his Presidential authority when he seized the nation's steel plants to ward off a strike. He was also told to return the mills forthwith to their private owners, which he did. At that point, the union went out on strike and stayed out for weeks. Millions of tons of steel production were lost at a time when the free world yearned for guns and tanks and planes. . . . But the movies were going full blast. People flocked to see *The African Queen*, *The Greatest Show on Earth* and *Singin' in the Rain*—all in

Technicolor, and all good films according to the critics. It was still next to impossible to get tickets for three Broadway musicals: *Pal Joey*, *Guys and Dolls* and *The King and I*.

- 2 Supreme Court (6-3) rules Truman's seizure of steel mills unconstitutional; Truman returns mills to owners; USW goes on strike.
- 4 Eisenhower makes first political speech in Abilene, Kans.
- 10 Superliner *United States* sets world speed record for merchant ships of a reported 34 knots.
- 14 Sen. Brien McMahon (D., Conn.) implies U. S. has now developed hydrogen bomb.
- 16 Russian MIGs shoot down unarmed Swedish flying boat over Baltic Sea; 7 Swedes rescued.

Schuman plan formally approved by Italy, completing ratification by all 6 participating nations.

- 17 2-day Long Island RR strike settled.
- 18 U. S. denounces before U. N. Security Council Russia's demand for ratification of 1925 Geneva protocol prohibiting bacteriological warfare.

Senate (43-40) kills St. Lawrence seaway and power project.

- 25 Truman vetoes McCarran immigration bill as "infamous." Congress overrides veto (June 27).
 - 28 Congress extends watered-down economic controls for 10 months.
- DIED:** 1—John Dewey, 92; 9—Adolf Busch, 60; 13—Emma Eames, 84.

JULY, 1952

THE GREAT QUADRENNIAL madness seized the nation: thousands of politicians from all corners of the land swarmed on Chicago, overran the city, and tried to cram themselves into the amphitheater hard by the stockyards where cattle are similarly crammed on occasion. The politicians, though, were noisier. They wore funny hats proclaiming their fervent admiration for Ike or Bob or Estes or Ave. They paraded up and down the aisles of the auditorium yelling and frantically waving signs. They came in two waves: first Republicans, then Democrats. After watching the Republican convention on television, the canny Democrats sent out leaflets to all their delegates, warning them that the TV camera might spot them at any moment, and please don't make any worse donkeys of themselves than necessary. The TV people were, in fact, all over the place in history's greatest and most expensive coverage of political conventions. The networks raked in about \$8 million

from their radio and TV sponsors, but they shoveled out some \$11 million. And after it was all over, the conventions had a lower TV rating than "I Love Lucy."

- 1 Senate ratifies West German peace contract (77-5), making U. S. first to ratify.
- 2 Senate Judiciary Committee charges Owen Lattimore was "conscious articulate instrument of Soviet conspiracy."
- 3 Russia casts veto in Security Council to defeat Red Cross inquiry of U. N. germ warfare in Korea.
- 7 Liner *United States* finishes crossing Atlantic in 3 days, 10 hrs., 40 min., beating 1938 record set by *Queen Mary*. 82nd Congress adjourns.
- 8 DeGaulle party in France splits; drops from largest party in National Assembly to 3rd largest.
- 10 Western Big 3 offer to meet with Russia to set up commission to investigate voting conditions throughout Germany.
- 11 Eisenhower nominated as Republican Presidential candidate; Nixon, as Vice-Presidential candidate.
- 14 Truman signs "fair trade" bill restoring right of manufacturers to set retail prices of brand-name products in 45 states.

Liner *United States* sets record for westward crossing of Atlantic: 3 days, 12 hrs. 12 min.

- 15 Navy reveals experimental plane flew 1,238 mi. an hour; also reached 79,494-ft. altitude.
- 21 Earthquake centering in Tehachapi, Calif., kills 12.
- 22 Alger Hiss loses appeal for new perjury trial on ground he was framed by Whitaker Chambers with fake typewriter.
- 23 Military coup in Egypt by Gen. Mohammed Naguib Bey puts Aly Maher Pasha in as Premier.
- 24 Truman announces settlement of steel strike.
- 26 Stevenson nominated as Democratic Presidential candidate; Sparkman, as Vice-Presidential candidate. King Farouk of Egypt forced to abdicate.
- 29 Maj. Gen. Robert W. Grow convicted by court-martial for keeping diary while U. S. Military Attaché in Moscow and letting Russians steal it.

Air Force says "flying saucers" nothing but electronic-atmospheric mirages.

- 31 2 U. S. helicopters complete first transatlantic flight.

DIED: 5—Alison Skipworth, 88; 26—Eva Perón; 28—Sen. Brien McMahon, 48.

AUGUST, 1952

"THE PATRON SAINT of Americans is St. Titus," remarked Dr. Norman Vincent Peale, pastor of New York's Marble Collegiate Church. "The American people are so tense and keyed up that it is impossible even to put them to sleep with a sermon." So we all went on vacation to relax and read good books. A large ad in the paper announced publication of *The Astounding Science Fiction Anthology* to keep us abreast of the fact that "the flight to Mars will soon be a milk run." Over two million adults, said the ad, are avid readers of Science Fiction—"the most intense national craze since detective fiction first caught the American imagination some 30 years ago." But perhaps the most intellectual way to keep keyed up this holiday month was by reading *Witness*, Whittaker Chambers' horror story of communism eating at our vitals. As for journeying forth to seek green vacation pastures, we really didn't need to. Everything was going green right at home. Chlorophyll toothpaste. Chlorophyll cigarettes. Chlorophyll dog food. Chlorophyll chewing gum. Forty concerns were manufacturing more than a hundred chlorophyll products, and they expected to push sales to \$50 million this year. Best smelling nation on earth, that's us.

- 3 Ford Foundation gives U. N. \$2.9 million to seek "permanent" solution of problem of 10 million displaced persons.
- 4 Nation's worst 2-bus collision kills 29 near Waco, Tex.
- 5 14 California Communists convicted of conspiracy to advocate violent overthrow of government; all get maximum penalty (Aug. 7): 5 years and \$10,000 fine.
- 6 Ellis G. Arnall resigns as Director of Price Stabilization.
- 10 Schuman plan goes into effect, with 6 Western European nations pooling coal and steel resources.
- 11 Jordan ousts mentally ill King Talal and places his son on throne as Hussein I.
- 14 For. Sec. Eden married to Clarissa Churchill, niece of Prime Minister.
- 15 Frank Costello, racketeer, goes to jail on 18-month sentence for contempt of Senate Crime Investigating Committee.
- 21 Government cost-of-living index rises to new record high of 190.8% of 1935-39 average.
- 22 Earthquake demolishes much of business district of Bakersfield, Calif.; 2 killed.

Justice Dept. sues 4 big American oil companies, accusing them of overcharg-

ing on Middle East oil shipped to Western Europe under Marshall plan.

- 24 Long-secret Federal Trade Commission report says 5 American and 2 foreign oil companies constitute dominating cartel.
- 25 U. S. Air Force begins flying thousands of stranded Moslem pilgrims from Lebanon to vicinity of Mecca.
- 30 Iran rejects Truman-Churchill proposal for settling dispute over seizure of British oil properties.

DIED: 14—Mark Sullivan, 77.

SEPTEMBER, 1952

FAVORITE SPORT of the month: peeking into the pocketbooks of men running for the highest offices in the land. It started with the Republican Vice-Presidential candidate, Dick Nixon. Seems \$18,000 had been showered upon him by some California admirers while he was a Senator. "What!" gasped the Democrats. "Here's a man who might be only one heart beat away from the White House. And he took a subsidy?" Would General Eisenhower fire his running mate? The General pondered. The Republicans bought \$75,000 worth of radio-TV time for Nixon to bare his financial soul to the nation. He told of his boyhood poverty, of the mortgages on his two homes, of the \$18,000 donations—every penny for expenses (including 40,000 Christmas cards), not one cent for him. He told of the only gift he meant to keep: the dear little dog an admirer sent to his daughters. "Soap opera!" snorted the Democrats. But many people loved it. Next it was Adlai Stevenson's turn. He not only told about his political fund to eke out Illinois state salaries, but also spread before all eyes his income-tax reports for the last 10 years. Average income: \$50,000 a year. In this amazing campaign month, candidates had to do everything but a strip tease.

- 5 Henry H. Fowler appointed Director of Defense Mobilization.
- 7 Gen. Mohammed Naguib ousts Egyptian Premier and takes post himself to speed reforms.
- 10 European Coal-Steel Community launched; its Assembly meets for 1st time in Strasbourg, France; votes to draft charter for European political confederation.
- 15 U. S. removes credit curbs on housing.
- 16 Russia and Red China agree that Russia is to keep Port Arthur, despite 1950 promise to withdraw.
- 17 FBI arrests 18 more U. S. Communist leaders for conspiracy, bringing total to 52.

- 18 Russia casts veto to bar Japan from U. N. membership.
- 19 Russian veto in U. N. bars 3 Indo-China states from membership.
U. S. bars Charles Chaplin from re-entering after trip to England.
- 24 French submarine *Sibylle* lost off Riviera with 48.
- DIED: 4—Count Carlo Sforza, 78; 6—Gertrude Lawrence, 52; 18—Frances Alda, 69; 22—H. T. Webster, 87; 26—George Santayana, 88.

OCTOBER, 1952

THE SAME BRIGHT idea must have hit the advertising boys at the same time. "Vote as you please but *remember* to vote," screamed Kellogg's Corn Flakes in red, white and blue all over its economy-size 12-oz. package. The Gerber baby-foods people put out posters saying: "For the sake of your baby's future, the Gerber Baby urges you to vote—Nov. 4." The canine angle came from the Gaines dog-food outfit, which enlisted dogs to wear blankets with the legend: "Be Freedom's Watch-Dog—Vote Nov. 4 and Vote as you Dog-gone Please." And a few patriotic curves were thrown by the manufacturers of the "Hidden Treasure" brassiere ("adds fullness confidentially") with their double-spread magazine ads proclaiming that: "The ballet box needs the woman's touch. Don't forget to vote." . . .

- 1 Japanese, in 1st independent election, approve pro-Western Premier Yoshida.
- 2 Stalin revises Communist theories; regards war among capitalist nations as more certain than Western attack on Russia.
- 3 Britain sets off 1st atomic explosion on Monte Bello Is. off Australia.
Russia demands recall of U. S. Ambassador George F. Kennan.
- 5 19th All-Soviet Communist Party Congress opens in Moscow; Malenkov says U. S. will "wreck the peace."
- 8 3 trains crash in England; 111 killed.
Truce talks in Korea are indefinitely suspended.
- 9 U. N. headquarters in New York completed with opening of 3rd building, General Assembly Hall.
- 13 Supreme Court upholds death sentence for Julius and Ethel Rosenberg, atomic spies.
- 14 7th session of U. N. General Assembly opens in New York.
- 16 Iran announces diplomatic break with Britain.
- 17 U. S. protests Russia's shooting down American B-29 off Japan.

- 18 Wage Stabilization Board cuts to \$1.50 the \$1.90-a-day pay increase granted Lewis' soft-coal miners by owners; miners stop work (Oct. 20).
- 22 U. N. lays off 12 American employees who refused to testify about Communist affiliations.
- 23 Nobel Prize for Medicine and Physiology goes to Dr. Selman A. Waksman, of Rutgers Univ., for discovery of streptomycin.
- 25 U. N., for 3rd straight year, refuses to seat Chinese Communists in General Assembly; National Chinese seated 40-7.
- 26 Lewis sends coal miners back to work after talk with Truman.
- 29 New "5 percenter" discovered; Lawrence Westbrook is dismissed as Democratic National Committee official.
Vishinsky calls for new U. N. commission to settle Korean war; West is skeptical.
- 31 Stevenson ultimatum ends 4-day rebellion in Illinois prison.

NOVEMBER, 1952

- 4 Eisenhower-Nixon Republican ticket elected; 442 electoral votes, to 89 for Stevenson-Sparkman Democratic ticket.
4-day rebellion of 1,600 prisoners in Ohio penitentiary ends with their surrender.
- 6 2 American atomic scientists—Dr. Felix Bloch of Stanford, and Dr. Edward M. Purcell of Harvard—win Nobel prize in Physics; Literature prize goes to Francois Mauriac of France.
- 7 Eisenhower accepts Truman invitation to send representatives to learn of budget, State and Defense Department affairs.
- 9 Eisenhower picks Joseph M. Dodge and Henry Cabot Lodge, Jr., as liaison representatives to outgoing Truman regime.
- 10 Trygve Lie tenders resignation as Secretary General of U.N.
Supreme Court bars railway "Jim Crow" cars.
- 13 Abraham H. Feller, general counsel to U.N., leaps to death from apartment.
- 14 New York Crime Commission exposes friendships among high politicians and underworld leaders.
- 16 Atomic Energy Commission announces "satisfactory" experiments in hydrogen-weapons research; eye witnesses tell of blasts near Eniwetok.
Greece elects by landslide conservative Papagos to premiership.
- 18 Eisenhower goes to White House to arrange liaison with Truman.
- DIED: 1—Dixie Lee Crosby, 40; 9—Philip Murray, 66; 9—Chaim Weizmann, 77.

HEADLINE STORIES OF 1952 AND RECENT YEARS

The Korean War

KOREA, an independent kingdom in ancient times, was placed under Chinese sovereignty in 1627, and was annexed by Japan in 1910. At the end of World War II in 1945, Russian troops occupied the northern half of Korea down to the 38th Parallel, and American troops occupied the southern half. The intention was to hold elections and set up an independent republic governing the entire country.

Russia, however, refused to allow a U. N. commission to enter North Korea in order to supervise free elections. Instead, the Russians set up a puppet government, which, on May 1, 1948, proclaimed jurisdiction over the whole country. Its capital was Pyongyang. With U. N. supervision, elections were held in South Korea, and the Republic of Korea was proclaimed, with Seoul as capital, Aug. 15, 1948.

Russia announced on Jan. 1, 1949, that its occupation troops had been withdrawn from North Korea. The U. S. withdrew its last troops from South Korea on June 29, 1949.

Early on the morning of Sunday, June 25, 1950 (Korean time), the Communist North Korean army invaded the Republic of Korea, attacking southward across the 38th Parallel. This was Saturday afternoon, June 24, New York time.

In the following chronology, Korean dates are used for events that took place there; American dates for events that took place here.

June 25, 1950—The North Koreans invaded the Republic of Korea.

June 27 (morning)—Truman ordered U. S. air and sea aid to the South Koreans; (afternoon)—The U. N. Security Council (at that time boycotted by Russia) asked U. N. members to "furnish such assistance to the Republic of Korea as may be necessary to repel the armed attack."

June 28—The Reds captured Seoul.

July 1—A battalion of U. S. 24th Infantry Division was flown to Korea.

July 5—U. S. troops battled the Reds south of Seoul.

July 8—Gen. MacArthur was named Supreme Commander for the U. N. by Truman.

(During the rest of July, the small American forces were swept back in retreat down the peninsula, along with South Korean troops.)

Aug. 3—The Allied forces set up a Pusan perimeter defense behind the Nakdong.

Sept. 6—The Reds captured Pohang, high point of their offensive that failed to drive the U. N. forces out of Korea.

Sept. 15—The U. S. 10th Corps made an amphibious landing at Inchon, the port for Seoul, cutting behind the North Korean army on the Pusan perimeter.

Sept. 26—MacArthur announced the capture of Seoul.

Oct. 4—The U. N. General Assembly Political Committee tacitly approved invading North Korea in a resolution recommending "all appropriate steps be taken to ensure conditions of stability throughout Korea."

Oct. 8—The U. S. 1st Cavalry made the first crossing of the 38th Parallel into North Korea by American forces.

Oct. 14—Truman met MacArthur on Wake Island.

Oct. 19—The Allies captured Pyongyang.

Oct. 25—The Chinese Communists intervened in Korea by crossing the Yalu River from Manchuria.

Oct. 30—South Korean troops reached the Manchurian border; were beaten back.

Nov. 6—MacArthur disclosed that Chinese Communist troops had entered the Korean war against the U. N.

Nov. 21—The U. S. 7th Division unit reached the Manchurian border.

Nov. 26—The Chinese opened a massive offensive, hurling the U. N. forces back in retreat.

Dec. 5—U. N. troops abandoned Pyongyang, the North Korean capital.

Dec. 8-24—The U. N. forces trapped at Changjin Reservoir fought their way out and were evacuated by sea from Hungnam.

Dec. 27—Lt. Gen. Matthew B. Ridgway took command of the U. S. 8th Army after Lt. Gen. Walton H. Walker's death at the front.

Jan. 4, 1951—The Reds recaptured Seoul; the Allies retreated 30 miles south.

Jan. 13—The U. N. voted a new Korean peace appeal; it was rejected by Red China Jan. 17.

Jan. 25—The Allies returned to the offensive.

Feb. 1—The U. N. General Assembly condemned (44-7) Red China as an aggressor.

Feb. 7—The U. N. rejected (49-5) Russian charges of American aggression against China.

Feb. 12—The Chinese Reds launched another major offensive, which they abandoned Feb. 18.

March 15—The Allies reoccupied Seoul, which the Reds abandoned without a fight.

March 24—MacArthur invited the Reds to confer with him in the field on a truce.

(This was a large factor in MacArthur's subsequent dismissal. He had been notified by Washington a few days previously that a similar statement was in preparation by the main Allies for issuance to the Reds.)

March 31—An American tank patrol reached the 38th Parallel into North Korea.

April 6—MacArthur's letter to Rep. Joseph Martin (R., Mass.) was disclosed; MacArthur favored stronger war measures, including the use of Chinese Nationalists.

April 11—Truman removed MacArthur from all commands; replaced him with Ridgway.

April 19—MacArthur addressed a joint session of Congress.

April 23—A Red spring offensive forced the Allies back, but it was halted in a week.

May 17—A second Red spring offensive was launched, but the Allies broke it and drove the enemy back as much as 20 miles north of the 38th Parallel.

May 18—The U. N. voted (47-0) an arms embargo against Communist China.

June 23—Russia's U. N. delegate, Yakov Malik, proposed a truce in Korea.

July 8—A preliminary truce talk was held at Kaesong.

July 10—Top-level truce talks were opened at Kaesong.

(Truce talks were halted July 12, 13, 14, until Reds yielded to U. S. demand that they neutralize Kaesong. Talks again were halted July 22, 23, 24, at the request of Reds, over issue of withdrawal of all foreign troops from Korea.)

Aug. 11—Korean truce negotiations were resumed after a 6-day suspension as the Reds promised to keep Kaesong neutral.

Aug. 23—The Communists broke off the Korean truce talks.

Sept. 20—They offered to resume the truce talks.

Sept. 24—Communist and U. N. liaison officers met to plan resumption of the truce talks; Ridgway demanded (Sept. 27) that the talks be moved 8 miles from Kaesong to Songhyen.

Oct. 4—The Korean Reds rejected the proposal; Ridgway demanded a site in no man's land.

Oct. 8—The liaison teams resumed talks.

Oct. 25—Talks were resumed at Panmunjom.

Nov. 14—Col. James Hanley, 8th Army Judge Advocate Chief in Korea, asserted that Chinese Reds had massacred 2,513 American POWs since Nov. 1, 1950, and North Korean Reds about 3,700.

Nov. 17—Gen. Ridgway verifies Communist slayings without giving figures; he regretted that the statement was issued without proper co-ordination.

Nov. 17—The U. N. offered a compromise on a cease-fire line. The present battle line was to be accepted for 30 days, pending an agreement on the remaining truce items—armistice supervision and exchange of prisoners. If no agreement were reached in 30 days, the cease-fire lines would shift in accordance with the battle line.

Nov. 27—A cease-fire line was agreed upon.

Nov. 29—Infantry action went into a lull awaiting truce negotiations.

Dec. 18—The U. N. and the Korean Reds exchanged lists of the prisoners they held.

Jan. 3, 1952—Russia asked a special Security Council session to end the Korean fighting; the U. S. rejected the proposal.

Feb. 5—The 6th session of the U. N. General Assembly ended in Paris after the Western nations had refused Russia's demand for a debate on Korea.

Feb. 26—Churchill revealed a secret Labour-government agreement with Truman to bomb Manchurian air bases if the Red air attack in Korea should increase.

May 7—Truman said the U. N. will never return Chinese and Korean Communist prisoners who fear to go back.

May 10—Communist war prisoners on Koje Island released Brig. Gen. Francis T. Dodd after holding him captive since May 7.

May 14—Brig. Gen. Charles F. Colson was ousted as commander of Koje Island prison camp for concessions made to the Communists for freeing Dodd; Brig. Gen. Haydon L. Boatner succeeded Colson.

May 15—Gen. Mark Clark repudiated Gen. Colson's promises to the Koje Island prisoners.

May 19—Maj. Gen. William K. Harrison, Jr., was named to succeed Vice-Adm. C. Turner Joy as chief of the U. N. truce negotiators.

May 23—The Army demoted Brig. Gen. Dodd and Brig. Gen. Colson; both were lowered to rank of Colonel.

June 10—38 Red prisoners were killed as they battled the U. S.'s clearing of Compound 76 on Koje Island.

June 14—South Korean President Rhee clamped censorship on news and banned the Voice of America broadcasts.

June 23—500 Allied warplanes crippled North Korean electric power plants, hitherto immune, in biggest bombing since World War II.

June 24—British Labour leaders pro-

tested our raids on North Korean power plants.

July 10—The Korean truce negotiations were 1 year old.

(Only a single point of dispute separated the two sides. The Communists insisted that the U. N. return its communist prisoners of war, whether or not they were willing to go back. The U. N. refused to return those POWs who feared to go back to Communist North Korea or China. When the U. N. completed the screening—or interrogation—of the Red POWs in its possession, the results were announced as follows: 83,000 Communist POWs were willing to go back; 87,000, however, did not wish to do so.)

July 11—Allied planes flew 1,200 sorties

to bomb Pyongyang, capital of North Korea.

Aug. 5—The Allies announced they would smash 78 North Korean towns by bombing; civilians, however, would be warned.

Aug. 29—Allied planes set a record of 1,403 sorties in blasting Pyongyang.

Sept. 4—Korean truce negotiators met briefly and recessed for the 6th week in succession.

Sept. 17—The U. S. revealed that guided missiles—radio-controlled pilotless planes—were being used by the Navy in Korea.

Oct. 6—The Communists launched a new offensive.

Oct. 8—The truce talks were suspended indefinitely.

The Steel Strike

A little-known Federal judge in Washington, David A. Pine, told the President of the U. S., on Apr. 29, 1952, that he had acted illegally. It was the first time in history that a court had issued what amounted to an injunction against the President. Judge Pine's bold stand set off a train of events which included: (a) one of the outstanding Supreme Court cases in the nation's history, and (b) one of the more damaging steel strikes.

President Truman, in the name of the government, had seized the steel plants in order to forestall a nation-wide strike. Actually, the steel-company managers still ran the plants, but the fact that the government was technically the owner caused the United Steelworkers (CIO) to keep on working.

Truman could have invoked the Taft-Hartley law to avert a strike for 80 days by means of a court injunction. However, he disliked that law, which had been passed over his veto, and organized labor also disliked it. Instead of using it, the President routed the steel wage dispute to the Wage Stabilization Board, which recommended increases that were accepted by the union but not by the employers.

The Supreme Court ruled that Judge Pine had been correct in calling Truman's seizure illegal. It told the President to return the steel mills immediately to their private owners. He did so.

The majority opinion was written by Justice Black and concurred in by Justices Frankfurter, Douglas, Jackson, Burton and Clark. Dissenting were Chief Justice Vinson and Justices Reed and Minton. Black reasoned that Truman had usurped a law-making function of Congress in taking over the steel industry. Vinson reasoned that the President was performing

his constitutional duty in an emergency by seeing that laws calling for the procurement of military equipment were executed.

Immediately after the Supreme Court decision, the 650,000 members of the United Steelworkers went on strike, the strike coming at a time when war materials were needed for the Korean fighting and for the allies of the U. S. in the North Atlantic Treaty Organization.

Congress "requested" President Truman to use the Taft-Hartley law to get steel production resumed for 80 days. He declined to do so, asserting that the union already had postponed the strike for 99 days at his request, and that it would not be fair to impose a further postponement by court injunction. He hinted that the union might not obey the court. He also charged that certain steel companies (presumably meaning the "Big Six" of the industry) were preventing other companies from making a settlement with the union. This seemed to him "a conspiracy against the public interest and not a labor dispute."

From the companies' point of view, the issue was complicated by price controls. The government refused to promise a price increase of more than the \$3 a ton already allowable under the law. The companies would have to prove their need of any further increase. They said the wage terms proposed by the WSB would raise the cost of steel at least \$6 a ton.

By mid-July, both civilian and war factories were closing for lack of steel.

The strike was settled at the White House on July 24. The workers got a basic pay increase of 16¢ an hour, plus "fringe" benefits that brought it up to about 22¢ an hour. This was somewhat less than

the Wage Stabilization Board had recommended on Mar. 20. The union shop, also recommended by the board, was modified to give workers the opportunity to avoid joining the union. The steel companies received permission to raise their basic steel ceiling price by \$5.20.

The strike was the longest and costliest in steel history. Approximately 17 million tons of steel were lost, and the workers lost some \$350 million in wages. Defense Secretary Lovett estimated that the strike had caused the loss of at least one-fifth of the "military hardware" planned for 1952 in the rearmament program.

Oct. 31, 1951—The United Steelworkers (CIO) notified the industry that it wanted new contracts to replace those expiring Dec. 31.

Nov. 27—Bargaining began between the USW and the U. S. Steel Corp. Initial union demands would cost at least 37¢ an hour more—half in wage increases, half in other benefits.

Dec. 17—Philip Murray, president of the USW, announced a strike for Jan. 1.

Dec. 22—Federal mediation failed; Truman referred the dispute to the Wage Stabilization Board.

Dec. 27—The USW postponed the strike at Truman's request.

Jan. 4, 1952—The USW again postponed the strike, this time for 45 days (from Jan. 7) to give the WSB time to study the case. New strike deadline: midnight, Feb. 23.

Feb. 1—The USW postponed the strike 4 more weeks to give the WSB more time. New strike deadline: midnight, Mar. 23.

Mar. 20—The WSB, in a decision reached by the 8 public and labor members (with the 4 industry members dissenting), recommended a 17½¢ hourly wage increase spread over 18 months, plus benefits, rais-

ing the total to 26½¢ an hour. The USW (Mar. 26) postponed its strike for Apr. 8.

April 8—Truman seized the steel industry to prevent a nation-wide strike.

April 21—The Senate twice rebuked Truman for his steel seizure: (1) by forbidding (44-31) any funds of a pending supplemental appropriation to be used for carrying out the seizure; and (2) by voting (47-29) for a measure to bar any Government money from being so used. This second measure was defeated, however, because of the lack of a ⅔ majority.

April 29—Federal Judge David A. Pine invalidated Truman's seizure; the USW went on strike, closing the steel industry.

April 30—The Court of Appeals (5-4) stayed Judge Pine's decision so that the U. S. Supreme Court could decide.

May 2—The strike was called off at Truman's request.

May 3—The Supreme Court forbade any change in steel wages pending its review of the case.

June 2—The Supreme Court (6-3) upheld Judge Pine's decision by ruling the steel seizure unconstitutional. Truman returned the mills to their owners, and the USW went out on strike again.

June 10—Truman asked Congress for a law permitting seizure of the steel industry. The Senate rejected the request and asked Truman (49-30) to use the Taft-Hartley Act to obtain an 80-day injunction against the strike.

June 25—The House joined the Senate in asking Truman to use the Taft-Hartley Act.

July 3—Truman accused the major steel companies of a "conspiracy" to prevent settlement of the strike. He refused to use the Taft-Hartley Act.

July 24—Truman announced settlement of the strike after conferring with Philip Murray and Benjamin F. Fairless, president of the U. S. Steel Corp.

The 1952 Election

THE 33rd PRESIDENT, DWIGHT EISENHOWER

Dwight David Eisenhower was born in Denison, Tex., on Oct. 14, 1890. His ancestors lived in Germany, and emigrated to America, settling in Pennsylvania, early in the 18th century. His father, David, had a general store in Hope, Kans., which failed. After a brief time in Texas, the family moved to Abilene, Kans., when young Dwight was about a year old. He was the third child of David Jacob and Ida Elizabeth Stover Eisenhower. One of his 6 brothers died in infancy, and another died in 1942. Surviving brothers in 1952 were

Arthur B., a banker; Edgar N., a lawyer; Earl N., an engineer; and Milton S., president of Pennsylvania State College.

After graduating from Abilene High School in 1909, Dwight Eisenhower did odd jobs for almost two years. He won an appointment to the Naval Academy at Annapolis, but it turned out that he was too old for admittance. Then he received an appointment in 1910 to West Point. He was graduated as a 2d Lieutenant in 1915.

To his regret, he did not see service in World War I, having been assigned to the

19th Infantry at Fort Sam Houston, Texas. There he met Mary ("Mamie") Geneva Doud, whom he married in Denver on July 1, 1916. Their first son died in infancy. Their second son is Maj. John Sheldon Doud Eisenhower.

Eisenhower's dearest wish in his Army career was to be given a combat command, but the Army recognized his administrative talents and kept him in staff posts. In 1926, he was top man in a class of 275 at the Army's Command and General Staff School at Fort Leavenworth. A paper he wrote about 1930 attracted the attention of Gen. Douglas MacArthur, then Chief of Staff, who asked that Eisenhower be assigned to his office. When MacArthur went to the Philippines as military adviser in 1935, Eisenhower accompanied him and remained with him until 1939.

During Army maneuvers in Louisiana in 1941, Eisenhower established a reputation as a tactician and came to the attention of Gen. George C. Marshall, the Army Chief of Staff. Marshall brought him into the War Department General Staff and, in 1942, put him in command of the Allied invasion of North Africa. In 1944, Eisenhower was made Supreme Allied Commander of the invasion of Europe.

After the war, Eisenhower served as Army Chief of Staff from Nov. 1945 until Feb. 1948, when he was appointed president of Columbia University. His book *Crusade in Europe* sold more than 800,000 copies and brought him \$635,000.

In Dec. 1950, President Truman recalled Eisenhower to active duty to command the North Atlantic Treaty Organization forces in Europe. He held this post until the end of May 1952.

THE PRIMARIES

At the beginning of 1952, the two big political questions were (1) whether General of the Army Dwight D. Eisenhower would be a candidate—and, if so, on which party ticket—and (2) whether President Harry S. Truman would run for re-election.

Eisenhower announced in January that he "would not seek nomination to political office," but that he realized Senator Henry Cabot Lodge, Jr., and others were advancing his name for the Republican nomination. He said that a "clear-cut call to political duty" would "transcend my present responsibilities." Eisenhower thus became available as a potential Republican nominee. At that time, he was in command of the North Atlantic Treaty Organization armed forces in Europe.

The nation's first primary election was held in New Hampshire in March. Eisenhower, still absent in Europe, won a decisive victory in the Republican voting over Senator Robert A. Taft.

In New Hampshire's Democratic primary, Senator Estes Kefauver, of Tennessee, won a surprising victory over President Truman, whose name was entered despite the fact he still had not said whether or not he would run.

It was not until the end of March that Truman announced: "I shall not be a candidate for re-election. I have served my country long and I think efficiently and honestly. I shall not accept a renomination."

Truman's withdrawal caused numerous Democrats to announce their readiness to accept the nomination. One Democrat prominently mentioned—Governor Adlai Stevenson of Illinois—said repeatedly that he was not a candidate for the nomination. He declined to say, however, that he would refuse a draft. His name was not entered in any state primary.

In the Republican primaries, Eisenhower showed great strength in the Eastern states. Taft's strength was in the heart of the Midwest, and in the South, where the Republican organizations were skeletal. According to the AP count, the two leading Republican contenders on the eve of the convention stood as follows: Taft, 530 committed delegates; Eisenhower, 427.

THE CONVENTIONS

The Republican National Convention opened amid a hot argument over disputed delegates' seats from 6 Southern states. The chief issue was over the 38 delegates from Texas. There were two delegations—one predominantly pro-Eisenhower, the other predominantly pro-Taft—and each claimed that it represented the Republican party in Texas and had the right to sit and vote in the convention.

Both the Republican National Committee and the Credentials Committee voted to seat a predominantly pro-Taft slate of delegates from Texas. The Eisenhower forces refused to accept this compromise, calling it a "back-room deal," and carried the fight to the floor of the convention.

The decisive vote as to which delegations to seat came in the case of Georgia, and the convention approved the pro-Eisenhower slate by a vote of 607-531. Accepting defeat, the Taft forces then yielded in the case of Texas.

On the first and only ballot for the Presidential nomination, the original count stood at 595 for Eisenhower, 500 for Taft, 81 for Warren, 20 for Stassen and 10 for MacArthur. Eisenhower was 9 votes short of the 604 needed to nominate. It was still possible, however, for the states to change their votes. Minnesota did so, giving Eisenhower 19 more votes. Other delegates then switched, making the official score 845 for Eisenhower, 280 for Taft, 77 for Gov. Earl

Warren, of California, and 4 for Gen. of the Army Douglas MacArthur.

The nomination of Senator Richard M. Nixon, of California, for Vice-President was unanimous.

According to the Associated Press count, the 3 leading Democratic contenders on the eve of the National Convention stood as follows: Kefauver, 256 committed delegates; Sen. Richard B. Russell, of Georgia, 121; Averell Harriman, 112½.

In the balloting for the Democratic Presidential nominee, favorite sons had their hour in the convention's first two votes. At the end of the second ballot, the standing was: Kefauver, 362½; Stevenson, 324½; Russell, 294; Harriman, 121. Just before the third ballot, Harriman withdrew, allowing most of New York's votes to go to Stevenson. When the roll call was finished on the third ballot, Stevenson was 3 votes short of the 616 needed to nominate. Then Senator Kefauver took the rostrum to give his and Tennessee's support to Stevenson.

The nomination of Senator John J. Sparkman, of Alabama, for Vice-President was unanimous.

THE CAMPAIGN

Following were some of the main issues in the Presidential campaign:

1. Korean warfare. Eisenhower promised to go to Korea to seek an honorable settlement; he also advocated training more South Korean troops to do the front-line fighting. Democrats said his promised trip was a grandstand play.

2. Government corruption. Eisenhower referred to the scandals that cropped up in the Truman Administration as "the Washington mess," which he promised to clean up.

3. Communists in government. Sen. Joseph R. McCarthy (R-Wis.) claimed that Stevenson and his close advisers were "soft" toward Communists. The Democratic National Committee issued a detailed refutation of McCarthy's claims.

4. Eisenhower's associates. Stevenson accused Eisenhower of "surrendering" to Taft and of "embracing" such extremist Republican Senators as Jenner of Indiana, and McCarthy. Eisenhower replied that he was trying to bind the Republican party together.

5. "Trumanism." Republicans depicted Stevenson as Truman's heir and therefore wedded to all his policies. They criticized Truman's vehement type of campaigning for Stevenson.

6. Political funds. Nixon was disclosed to have accepted \$18,000 from admirers while in the Senate. He said in a radio address that this money was used entirely for expenses, and gave an accounting of his

finances. However, he did not publish his income-tax returns. Eisenhower considered dropping Nixon from the ticket, but after the broadcast, which drew overwhelmingly favorable response from the public, Eisenhower declared Nixon "completely vindicated." Stevenson acknowledged disbursing a political fund to increase the income of men he had drawn into the Illinois state government. He gave an accounting and also published his personal income-tax returns for 10 years. Eisenhower issued a personal report on his income tax.

7. The Taft-Hartley Act. Eisenhower favored limited revision of it. Stevenson favored repeal and the writing of a substitute law.

8. Submerged offshore oil reserves. Eisenhower advocated giving them to the states. Stevenson urged Federal control.

ELECTION RESULTS

On the basis of unofficial returns, Eisenhower won 33 million votes, Stevenson 26.5 million. The total popular vote was a record. Unofficial returns indicated that Eisenhower had carried 39 states with 442 electoral votes, Stevenson 9 states with 89 electoral votes.

The Republicans won 48 Senate seats, the Democrats 47. Sen. Wayne Morse, of Oregon, labelled himself an Independent Republican after his bolt to Stevenson. However, even if he were to vote with the Democrats, the Republicans presumably would be able to organize the Senate and take over committee chairmanships by virtue of Vice-President Nixon's power to break a tie vote. The Republicans also won control of the House by a narrow margin. At the time of our going to press, these results were subject to change in official counts, including absentee ballots.

Mar. 11—Eisenhower and Kefauver won the New Hampshire primary, nation's 1st.

Mar. 18—Eisenhower received more than 100,000 write-in votes in the Minnesota primary, a close second to Stassen.

Mar. 29—Truman announced he would not run again.

Apr. 8—Taft won the Illinois primary; Stassen 2nd, Eisenhower (write-in) 3rd.

Apr. 15—Eisenhower won the New Jersey primary with 60% of the votes, beating Taft and Stassen.

Apr. 22—Eisenhower won the New York and Pennsylvania primaries.

June 1—Eisenhower returned to Washington from Europe.

June 4—Eisenhower made his first political address in Abilene, Kans.

June 10—MacArthur was named Repub-

hican keynoter for the national convention over the protests of the Eisenhower forces.

July 7—The Republican National Convention opened. Eisenhower won the first vote 658-548, barring contested delegates from voting on delegate contests.

July 11—Eisenhower was nominated on the first ballot. Sen. Nixon, of California, was nominated by acclamation for Vice President.

July 12—Arthur E. Summerfield, of Michigan, was named Republican National Chairman. Eisenhower resigned from the Army, giving up his 5-star status and a potential \$19,000 annual pension.

July 21—The Democratic National Convention opened. Barkley withdrew as a candidate because labor leaders told him he was too old.

July 24—Truman threw his support to Stevenson.

July 26—Stevenson was nominated on the third ballot. Sen. Sparkman, of Alabama, was nominated for Vice President.

Aug. 8—Stevenson picked Stephen A. Mitchell, Chicago attorney and political novice, to be Democratic National Chairman.

Aug. 12—Stevenson visited Truman at the White House and received a briefing on the foreign situation.

Aug. 14—Eisenhower rejected Truman's invitation to the White House.

Sept. 1—Stevenson opened his Presidential campaign in Detroit, calling for repeal of the Taft-Hartley law.

Sept. 2—Eisenhower campaigned in 4 Southern states, the first Republican candidate to do so.

Sept. 4—Eisenhower formally opened his campaign by TV at Philadelphia, giving his program for preventing World War III.

Sept. 12—Taft met Eisenhower in New York and promised full campaign aid.

Oct. 18—Sen Wayne Morse, of Oregon, bolted the Republican party to support Stevenson.

Oct. 20—Truman denied imputing anti-Jewish and anti-Catholic bias to Eisenhower.

Oct. 24—Eisenhower said he would go to Korea if elected President to seek an honorable end of the war.

Nov. 4—The Eisenhower-Nixon Republican ticket was elected with 442 electoral votes. The Stevenson-Sparkman Democratic ticket had 89.

Vote for President by States, 1952 (unofficial returns)

State	Popular		Electoral		State	Popular		Electoral	
	Rep.	Dem.	R	D		Rep.	Dem.	R	D
Alabama.....	143,546	263,934	..	11	Nevada.....	50,467	31,749	3	..
Arizona.....	138,988	99,325	4	..	New Hampshire...	165,888	106,569	4	..
Arkansas.....	150,867	189,047	..	8	New Jersey.....	1,368,643	1,011,034	16	..
California.....	2,703,887	2,088,850	32	..	New Mexico.....	128,489	103,575	4	..
Colorado.....	369,644	238,238	6	..	New York.....	3,949,135	3,098,103	45	..
Connecticut.....	610,989	481,482	8	..	North Carolina...	531,148	626,225	..	14
Delaware.....	90,058	82,969	3	..	North Dakota.....	146,056	59,482	4	..
Florida.....	510,560	423,483	10	..	Ohio.....	2,098,481	1,602,739	25	..
Georgia.....	184,504	408,989	..	12	Oklahoma.....	504,458	423,003	8	..
Idaho.....	179,486	93,467	4	..	Oregon.....	374,696	240,859	6	..
Illinois.....	2,463,564	1,995,098	27	..	Pennsylvania.....	2,390,763	2,129,896	32	..
Indiana.....	1,129,406	803,383	13	..	Rhode Island.....	206,351	200,209	4	..
Iowa.....	799,046	447,750	10	..	South Carolina....	154,856	165,834	..	8
Kansas.....	579,275	261,163	8	..	South Dakota.....	199,077	89,566	4	..
Kentucky.....	493,062	494,109	..	10	Tennessee.....	431,853	427,749	11	..
Louisiana.....	273,465	304,494	..	10	Texas*.....	1,065,074	932,404	24	..
Maine.....	232,468	118,614	5	..	Utah.....	192,879	134,938	4	..
Maryland.....	493,957	391,744	9	..	Vermont.....	109,239	43,220	3	..
Massachusetts.....	1,293,800	1,086,921	16	..	Virginia.....	347,774	269,655	12	..
Michigan.....	1,529,101	1,204,480	20	..	Washington.....	494,912	414,506	9	..
Minnesota.....	722,527	552,180	11	..	West Virginia.....	394,704	429,560	..	8
Mississippi.....	108,138	161,485	..	8	Wisconsin.....	958,173	609,637	12	..
Missouri.....	905,573	883,072	13	..	Wyoming.....	64,455	37,307	3	..
Montana.....	153,818	102,848	4	..					
Nebraska.....	404,286	182,760	6	..	Totals.....	32,991,586	26,547,704	442	89

* Reports by counties. † Reports by towns. NOTE: The returns shown in this table represent 96.9% of the nation's districts.

CONGRESS OF THE UNITED STATES

PARTY STRENGTH IN CONGRESS

The Senate (Necessary to majority—49)

	74th 1935	75th 1937	76th 1939	77th 1941	78th 1943	79th 1945	80th 1947	81st 1949	82nd 1951	83rd 1953
Republican ..	25	17	23	28	38	38	51	42	47	48
Democratic ..	69	75	69	66	57	57	45	54	49	47
Farmer-Labor ..	1	2	2	0	0	0	0	0	0	0
Progressive ..	1	1	1	1	1	1	0	0	0	0
Independent ..	0	1	1	1	0	0	0	0	0	1

The House (Necessary to majority—218)

	103	89	170	162	209	190	246	171	199	220*
Republican ...	322	333	262	268	222	243	188	263	235	211*
Democratic ...	3	5	1	1	1	0	0	0	0	0
Farmer-Labor ...	7	8	2	3	2	1	0	0	0	0
Progressive ...	0	0	0	1	0	0	0	0	1	1
Independent ...	0	0	0	0	1	1	1	1	0	0
American Labor										

NOTE: The year shown with each Congress is the one in which the first session was held. The party breakdown is according to the election held the preceding November. *As the Almanac went to press, 3 House seats were still disputed.

THE EIGHTY-THIRD CONGRESS

THE SENATE

Democrats are in *italic* type; Republicans in roman; Independent Republican in SMALL CAPS. The expiration date of each senator's term is Jan. 3 of the year shown in parentheses. An asterisk (*) indicates that the senator was returned to office in the election of Nov. 4, 1952.

ALABAMA

Lister Hill (1957)
John J. Sparkman (1955)

ARIZONA

Carl Hayden (1957)
Barry M. Goldwater
(1959)

ARKANSAS

John L. McClellan (1955)
J. William Fulbright (1957)

CALIFORNIA

**William F. Knowland*
(1959)
Richard M. Nixon (1957)

COLORADO

Edwin C. Johnson (1955)
Eugene D. Millikin (1957)

CONNECTICUT

Prescott S. Bush (1957)¹
William A. Purtell (1959)

DELAWARE

**John J. Williams* (1959)
J. Allen Frear, Jr. (1955)¹

FLORIDA

**Spessard L. Holland*
(1959)
George A. Smathers (1957)

GEORGIA

Walter F. George (1957)
Richard B. Russell (1955)

IDAHO

Henry C. Dworshak (1955)*
Herman Welker (1957)

ILLINOIS

Paul H. Douglas (1955)
Everett M. Dirksen (1957)

INDIANA

Homer E. Capehart (1957)
**William E. Jenner* (1959)

IOWA

Bourke B. Hickenlooper
(1957)
Guy M. Gillette (1955)

KANSAS

Andrew F. Schoeppel
(1955)
Frank Carlson (1957)

KENTUCKY

Earle C. Clements (1957)
John S. Cooper (1955)*

LOUISIANA

Allen J. Ellender, Sr.
(1955)
Russell B. Long (1957)

MAINE

Margaret Chase Smith
(1955)
Frederick G. Payne (1959)*

MARYLAND

John M. Butler (1957)
J. Glenn Beall (1959)

MASSACHUSETTS

Leverett Saltonstall (1955)
John F. Kennedy (1959)

MICHIGAN

Homer Ferguson (1955)
Charles E. Potter (1959)

MINNESOTA

**Edward J. Thye* (1959)
Hubert H. Humphrey
(1955)

MISSISSIPPI

James O. Eastland (1955)
**John C. Stennis* (1959)

MISSOURI

Thomas C. Hennings, Jr.
 (1957)
W. S. Symington (1959)

MONTANA

James E. Murray (1955)
Mike Mansfield (1959)

NEBRASKA

**Hugh Butler* (1959)
Dwight Griswold (1955)*

NEVADA

Pat McCarran (1957)
**George W. Malone* (1959)

NEW HAMPSHIRE

Styles Bridges (1955)
Charles W. Tobey (1957)

NEW JERSEY

**H. Alexander Smith* (1959)
Robert C. Hendrickson
 (1955)

NEW MEXICO

**Dennis Chavez* (1959)
Clinton P. Anderson (1955)

NEW YORK

**Irving M. Ives* (1959)
Herbert H. Lehman (1957)

NORTH CAROLINA

Clyde R. Hoey (1957)
Willis Smith (1955)*

NORTH DAKOTA

**William Langer* (1959)
Milton R. Young (1957)

OHIO

Robert A. Taft (1957)
**John W. Bricker* (1959)

OKLAHOMA

Robert S. Kerr (1955)
A. S. Mike Monroney
 (1957)

OREGON

Guy Cordon (1955)
WAYNE MORSE (1957)

PENNSYLVANIA

**Edward Martin* (1959)
James H. Duff (1957)

RHODE ISLAND

Theodore Francis Green
 (1955)
**John O. Pastore* (1959)

SOUTH CAROLINA

Burnet R. Maybank
 (1955)
Olin D. Johnston (1957)

SOUTH DAKOTA

Karl E. Mundt (1955)
Francis Case (1957)

TENNESSEE

Estes Kefauver (1955)
Albert Gore (1959)

TEXAS

Lyndon B. Johnson (1955)
Price Daniel (1959)

UTAH

**Arthur V. Watkins* (1959)
Wallace F. Bennett (1957)

VERMONT

George D. Aiken (1957)
**Ralph E. Flanders* (1959)

VIRGINIA

**Harry Flood Byrd* (1959)
A. Willis Robertson (1955)

WASHINGTON

Warren G. Magnuson
 (1957)
Henry M. Jackson (1959)

WEST VIRGINIA

**Harley M. Kilgore* (1959)
Matthew M. Neely (1955)

WISCONSIN

Alexander Wiley (1957)
**Joseph R. McCarthy* (1959)

WYOMING

Lester C. Hunt (1955)
Frank A. Barrett (1959)

* Elected Nov. 1952 to serve remainder of term of Brien McMahon (D), who died July 1952. By appointment, Purtell served Aug. 1952-Jan. 1953. * Appointed Oct. 1949 and elected Nov. 1950 to serve remainder of term of Bert H. Miller (D), who died Oct. 1949. * Elected in state election of Sept. 8, 1952. * Elected Nov. 1952 to serve remainder of term of Kenneth S. Wherry (R), who died Nov. 1951. By appointment, Fred A. Seaton (R) served Dec. 1951-Jan. 1953. * Elected Nov. 1950 to serve remainder of term of J. Melville Broughton (D), who died Mar. 1949. By appointment, Frank Porter Graham (D) served Mar. 1949-Nov. 1950. * Elected Nov. 1952 to serve remainder of term of Virgil M. Chapman (D), who died Mar. 1951. By appointment, Thomas R. Underwood (D) served Mar. 1951-Jan. 1953.

THE HOUSE OF REPRESENTATIVES

Democrats are in *italic* type; Republicans in roman; Independent in SMALL CAPS. The numerals indicate the Congressional Districts of the states, and the designation At-L means At-Large. An asterisk (*) indicates that the congressman was returned to office in the election of Nov. 4, 1952. The terms of all representatives end Jan. 3, 1954.

ALABAMA

1. **Frank W. Boykin*
2. **George M. Grant*
3. **George W. Andrews*
4. **Kenneth A. Roberts*
5. **Albert Rains*
6. *Armistead I. Selden, Jr.*
7. **Carl Elliott*
8. **Robert E. Jones, Jr.*
9. **Laurie C. Battle*

ARIZONA

1. *John J. Rhodes*
2. **Harold A. Patten*

ARKANSAS

1. **E. C. Gathings*
2. **Wilbur D. Mills*
3. **James W. Trimble*
4. **Oren Harris*
5. **Brooks Hays*
6. **W. F. Norrell*

CALIFORNIA

1. **Hubert B. Scudder*
2. **Clair Engle*
3. *John E. Moss, Jr.*
4. *William S. Maillard*
5. **John F. Shelley*

6. *Robert L. Condon*

7. **John J. Allen, Jr.*
8. *George P. Miller*
9. *J. Arthur Younger*
10. *Charles S. Gubser*
11. **Leroy Johnson*
12. **A. Oakley Hunter*
13. (1)
14. *Harland Hagan*
15. **Gordon L. McDonough*
16. **Donald L. Jackson*
17. **Cecil R. King*
18. *Craig Hosmer*
19. **Chet Holtfield*
20. **Carl Hinshaw*

21. Edgar W. Hiestand
22. Joseph F. Holt
23. *Clyde Doyle
24. *Norris Poulson
25. *Patrick J. Hillings
26. *Samuel W. Yorty
27. *Harry R. Sheppard
28. James B. Utt
29. *John Philipps
30. Robert O. Wilson

COLORADO

1. *Byron G. Rogers
2. *William S. Hill
3. *J. Edgar Chenoweth
4. *Wayne N. Aspinall

CONNECTICUT

1. Thomas J. Dodd
2. *Horace Seely-Brown, Jr.
3. Albert Cretella, Sr.
4. *Albert P. Morano
5. *James T. Patterson
- At.-L. *Antoni N. Sadlak

DELAWARE

- At.-L. Herbert B. Warburton

FLORIDA

1. Courtney W. Campbell
2. *Charles E. Bennett
3. *Robert L. F. Sikes
4. *William C. Lantaff
5. *A. S. Herlong, Jr.
6. *Dwight L. Rogers
7. James A. Haley
8. D. R. Matthews

GEORGIA

1. *Prince H. Preston, Jr.
2. *E. E. Cox
3. *E. L. Forrester
4. *A. Sidney Camp
5. *James C. Davis
6. *Carl Vinson
7. *Henderson L. Lanham
8. *W. M. (Don) Wheeler
9. Phil M. Landrum
10. *Paul Brown

IDAHO

1. (*)
2. *Hamer H. Budge

ILLINOIS

1. *William L. Dawson
2. Barratt O'Hara
3. *Fred E. Busbey
4. *William E. McVey
5. *John C. Kluczynski
6. *Thomas J. O'Brien
7. (Vacant)*
8. *Thomas S. Gordon
9. *Sidney R. Yates
10. *Richard W. Hoffman
11. *Timothy P. Sheehan
12. *Edgar A. Jonas

13. *Marguerite S. Church
14. *Chauncey W. Reed
15. *Noah M. Mason
16. *Leo E. Allen
17. *Leslie C. Arends
18. *Harold H. Velde
19. *Robert B. Chipfield
20. *Sid Simpson
21. *Peter F. Mack, Jr.
22. *William L. Springer
23. *Charles W. Vursell
24. *Melvin Price
25. *C. W. (Runt) Bishop

INDIANA

1. *Ray J. Madden
2. *Charles A. Halleck
3. *Shepherd J. Crum-packer, Jr.
4. *E. Ross Adair
5. *John V. Beamer
6. *Mrs. Cecil M. Harden
7. *William G. Bray
8. D. Bailey Merrill
9. *Earl Wilson
10. *Ralph Harvey
11. *Charles B. Brownson

IOWA

1. *Thomas E. Martin
2. *Henry O. Talle
3. *H. R. Gross
4. *Karl M. LeCompte
5. *Paul Cunningham
6. *James I. Dolliver
7. *Ben F. Jensen
8. *Charles B. Hoeven

KANSAS

1. Howard S. Miller
2. *Everett P. Scrivner
3. *Myron V. Gees
4. *Edward H. Rees
5. *Clifford R. Hope
6. *Wint Smith

KENTUCKY

1. *Noble J. Gregory
2. *Garrett L. Withers
3. John M. Robison, Jr.
4. *Frank L. Chelf
5. *Brent Spence
6. *John C. Watts
7. *Carl D. Perkins
8. *James S. Golden

LOUISIANA

1. *F. Edward Hébert
2. *Hale Boggs
3. *Edwin E. Willis
4. *Overton Brooks
5. *Otto E. Passman
6. *James H. Morrison
7. T. A. Thompson
8. George S. Long

MAINE

1. *Robert Hale
2. *Charles P. Nelson
3. *Clifford MacIntyre

MARYLAND

1. *Edward T. Miller
2. *James P. S. Devereux
3. *Edward A. Garmatz
4. *George H. Fallon
5. Frank Small, Jr.
6. DeWitt S. Hyde
7. Samuel N. Friedel

MASSACHUSETTS

1. *John W. Heselton
2. Edward P. Boland
3. *Philip J. Philbin
4. *Harold D. Donohue
5. *Edith Nourse Rogers
6. *William H. Bates
7. *Thomas J. Lane
8. *Angler L. Goodwin
9. *Donald W. Nicholson
10. Laurence Curtis
11. Thomas P. O'Neill, Jr.
12. *John W. McCormack
13. *Richard B. Wigglesworth
14. *Joseph W. Martin, Jr.

MICHIGAN

1. *Thaddeus M. Machrowicz
2. *George Meader
3. *Paul W. Shafer
4. *Clare E. Hoffman
5. *Gerald R. Ford, Jr.
6. Kit Clardy
7. *Jesse P. Wolcott
8. Alvin M. Bentley
9. *Ruth Thompson
10. Elford A. Cederberg
11. Victor A. Knox
12. *John B. Bennett
13. *George D. O'Brien
14. *Louis C. Rabaut
15. *John D. Dingell
16. *John Lesinski, Jr.
17. Charles G. Oakman
18. *George A. Dondero

MINNESOTA

1. *August H. Andresen
2. *Joseph P. O'Hara
3. *Roy W. Wier
4. *Eugene J. McCarthy
5. *Walter H. Judd
6. *Fred Marshall
7. *H. Carl Andersen
8. *John A. Blatnik
9. *Harold C. Hagen

MISSISSIPPI

1. *Thomas G. Abernethy
2. *Jamie L. Whitten
3. *Frank E. Smith

4. *John Bell Williams
5. *Arthur Winstead
6. *William M. Colmer

MISSOURI

1. *Frank M. Karsten
2. *Thomas B. Curtis
3. *Mrs. John B. Sullivan
4. Jeffrey P. Hilleson
5. *Richard Bolling
6. William C. Cole
7. *Dewey Short
8. *A. S. J. Carnahan
9. *Clarence Cannon
10. *Paul C. Jones
11. *Morgan M. Moulder

MONTANA

1. Lee Metcalf
2. *Wesley A. D'Ewart

NEBRASKA

1. *Carl T. Curtis
2. Rowan L. Eruska
3. *Robert D. Harrison
4. *A. L. Miller

NEVADA

- At.-L. Clifton Young

NEW HAMPSHIRE

1. *Chester E. Merrow
2. *Norris Cotton

NEW JERSEY

1. *Charles A. Wolverton
2. *T. Millet Hand
3. *James C. Auchincloss
4. *Charles R. Howell
5. P. Frelinghuysen, Jr.
6. *Clifford P. Case
7. *William B. Widnall
8. *Gordon Canfield
9. *Frank C. Osmer, Jr.
10. *Peter W. Rodino, Jr.
11. *Hugh J. Addonizio
12. *Robert W. Kean
13. *Alfred D. Sieminski
14. *Edward J. Hart

NEW MEXICO

- At.-L. *Antonio M. Fernandez
- At.-L. *John J. Dempsey

NEW YORK

1. S. Wainwright
2. S. B. Derounian
3. Frank J. Becker
4. *Henry J. Latham
5. Albert H. Bosch
6. Lester Holtzman
7. *James J. Delaney
8. *Louis B. Heller
9. *Eugene J. Keogh
10. *Edna F. Kelly
11. *Emanuel Celler

12. Francis E. Dorn
13. *Abraham J. Multer
14. *John J. Rooney
15. John H. Ray, Jr.
16. *Adam C. Powell, Jr.
17. *Frederic R. Coudert, Jr.
18. *James G. Donovan
19. *Arthur G. Klein
20. *Franklin D. Roosevelt, Jr.

21. *Jacob K. Javits
22. *Sidney A. Fine
23. *Isidore Dollinger
24. *Charles A. Buckley
25. Paul A. Fino
26. *Ralph A. Gamble
27. *Ralph W. Gwinn
28. *Katharine St. George
29. *J. Ernest Wharton
30. *Leo W. O'Brien
31. *Dean P. Taylor
32. *Bernard W. Kearney
33. *Clarence E. Kilburn
34. *William R. Williams
35. *R. Walter Riehlman
36. *John Taber
37. *W. Sterling Cole
38. *Kenneth B. Keating
39. *Harold C. Ostertag
40. *William E. Miller
41. *Edmund P. Radwan
42. John R. Pillion
43. *Daniel A. Reed

NORTH CAROLINA

1. *Herbert C. Bonner
2. L. H. Fountain
3. *Graham A. Barden
4. *Harold D. Cooley
5. *Thurmond Chatham
6. *Carl T. Durham
7. *F. Ertel Carlyle
8. *Charles B. Deane
9. Hugh Q. Alexander
10. Charles R. Jones
11. *Woodrow W. Jones
12. George A. Shuford

NORTH DAKOTA

- At.-L. *Usher L. Burdick
- At.-L. Otto Krueger

OHIO

1. Gordon H. Scherer
2. *William E. Hess
3. *Paul F. Schenck
4. *William M. McCulloch
5. *Cliff Clevenger
6. *James G. Polk
7. *Clarence J. Brown
8. *Jackson E. Betts
9. *FRAZIER REAMS
10. *Thomas A. Jenkins
11. Oliver P. Bolton
12. *John M. Vorys
13. *Alvin F. Welchel
14. *William H. Ayres
15. *Robert T. Secrest

16. *Frank T. Bow
17. *J. Harry McGregor
18. *Wayne L. Hayes
19. *Michael J. Kirwan
20. *Michael A. Feighan
21. *Robert Crosser
22. *Frances P. Bolton
23. *George H. Bender

OKLAHOMA

1. *Page Belcher
2. Ed Edmondson
3. *Carl Albert
4. *Tom Steed
5. *John Jarman
6. *Victor Wickersham

OREGON

1. *Walter Norblad
2. Sam Coon
3. *Homer D. Angell
4. *Harris Ellsworth

PENNSYLVANIA

1. *William A. Barrett
2. *William T. Granahan
3. James A. Byrne
4. *Earl Chudoff
5. *William J. Green, Jr.
6. *Hugh D. Scott, Jr.
7. *Benjamin F. James
8. *Karl C. King
9. *Paul B. Dague
10. *Joseph L. Carrigg
11. Edward J. Bonin
12. *Ivor D. Fenton
13. *Samuel K. McConnell, Jr.
14. *George M. Rhodes
15. *Francis E. Walter
16. *Walter M. Mumma
17. *Alvin R. Bush
18. *Richard M. Simpson
19. S. Walter Stauffer
20. *James E. Van Zandt
21. *Augustine B. Kelley
22. *John P. Saylor
23. *Leon H. Gavin
24. *Carroll D. Kearns
25. *Louis E. Graham
26. *Thomas E. Morgan
27. *James G. Fulton
28. *Herman P. Eberharter
29. *Robert J. Corbett
30. *Vera Buchanan

RHODE ISLAND

1. *Aime J. Forand
2. *John E. Fogarty

SOUTH CAROLINA

1. *L. Mendel Rivers
2. *John J. Riley
3. *W. J. Bryan Dorn
4. *Joseph R. Bryson
5. *James P. Richards
6. *John L. McMillan

SOUTH DAKOTA

1. *Harold L. Lovre
2. *E. Y. Berry

TENNESSEE

1. *B. Carroll Reece
2. *Howard H. Baker
3. *James B. Frazier, Jr.
4. *Joseph L. Evins
5. *J. Percy Priest
6. *Pat Sutton
7. *Tom Murray
8. *Jere Cooper
9. *Clifford Davis

TEXAS

1. *Wright Patman
2. Jack B. Brooks
3. Brady Gentry
4. *Sam Rayburn
5. *J. Frank Wilson
6. *Olin E. Teague
7. *John Dowdy
8. *Albert Thomas
9. Clark W. Thompson
10. *Homer Thornberry
11. *W. R. Poage
12. *Wingate H. Lucas
13. *Frank Ikard
14. *John E. Lyle, Jr.
15. *Lloyd M. Bentsen, Jr.
16. *Ken Regan

17. *Omar Burleson
 18. *Walter E. Rogers
 19. *George H. Mahon
 20. *Paul J. Kilday
 21. *O. C. Fisher
- At.-L. Martin Dies

UTAH

1. D. R. Stringfellow
2. William A. Dawson

VERMONT

- At.-L. *Winston L. Prouty

VIRGINIA

1. *Edward J. Robeson, Jr.
2. *Porter Hardy, Jr.
3. *J. Vaughan Gary
4. *Watkins M. Abbitt
5. *Thomas B. Stanley
6. Richard H. Poff
7. *Burr P. Harrison
8. *Howard W. Smith
9. William C. Wampler
10. Joel T. Brophyll

WASHINGTON

1. Thomas M. Pelly
2. Jack Westland
3. *Russell V. Mack
4. *Hal Holmes
5. *Walt Horan
6. *Thor C. Tollefson

At.-L. (5)**WEST VIRGINIA**

1. Robert H. Mollohan
2. *Harley O. Staggers
3. *Cleveland M. Bailey
4. Will E. Neal
5. *Elizabeth Kee
6. Robert C. Byrd

WISCONSIN

1. *Lawrence H. Smith
2. *Glenn R. Davis
3. *Gardner R. Withrow
4. *Clement J. Zablocki
5. Charles J. Kersten
6. William K. Van Pelt
7. Melvin R. Laird
8. *John W. Byrnes
9. *Merlin Hull
10. *Alvin E. O'Konski

WYOMING

- At.-L. *William H. Harrison

ALASKA

- *E. L. Bartlett*

HAWAII

- *Joseph R. Farrington*

PUERTO RICO

- A. Fernós-Isern*

¹ Still disputed as the Almanac went to press; Incumbent Ernest K. Bramblett (R) was leading. ² Still disputed as the Almanac went to press; Mrs. Gracie Frost (D) was leading. ³ Vacancy caused by death of Adolph J. Sabath (D) in Nov. 1952. ⁴ Elected in state election of Sept. 8, 1952. ⁵ Still disputed as the Almanac went to press; Don Magnuson (D) was leading. ⁶ Delegate; does not have a vote. ⁷ Resident Commissioner; does not have a vote.

Congressional Committees

Source: Congressional Directory.

SENATE

Committees	Members
Agriculture and Forestry.	13
Appropriations.	21
Armed Services.	13
Banking and Currency.	13
Civil Service.	13
District of Columbia.	13
Expenditures in the Executive Departments.	13
Finance.	13
Foreign Relations.	13
Interstate and Foreign Commerce. ...	13
Judiciary.	13
Labor and Public Welfare.	13
Public Lands.	13
Public Works.	13
Rules and Administration.	13

HOUSE

Committees	Members
Agriculture.	27
Appropriations.	43
Armed Services.	33
Banking and Currency.	27
Post Office and Civil Service.	25
District of Columbia.	25
Education and Labor.	25
Expenditures in the Executive Departments.	25
Foreign Affairs.	25
House Administration.	25
Interstate and Foreign Commerce.	27
Judiciary.	27
Merchant Marine and Fisheries. ...	25
Public Lands.	25
Public Works.	27
Rules.	12
Un-American Activities.	9
Veterans' Affairs.	7
Ways and Means.	25

PARLIAMENTARY PROCEDURE

by

Dan Golenpaul

Parliamentary procedures are rules for the conduct of a meeting in an orderly and democratic manner. Their purpose is to ensure the rule by a majority and to protect the rights of all members of an organization or assembly in meetings and in connection with all activities of the organization. The application of parliamentary rules is solely for this purpose.

Very often, though, individuals employ the rules for a contest of wits. This practice can be interesting and the life of the meeting, but it can also be a nuisance and a field day for parliamentary pests. The degree to which this activity may be tolerated should be dictated by circumstances. A certain amount of indulgence may be necessary because it is part of the game and is inevitably an expression of many egos that meet in a group.

Under no circumstances, however, should a chairman or members permit anyone to use the rules of procedure to trick and confuse members or to impede the function of a meeting. To prevent these occurrences, a knowledge of parliamentary rules is important. We will do our best in the limited space permitted to impart a little learning. (But remember, a little learning is a dangerous thing.) What we are setting forth here should be adequate to take care of most situations in organizations made up of friendly people who want to conduct their business in an orderly, friendly manner.

If it is necessary for you to be a member of a group that is involved in bitter conflicts, then we advise that you go to more technical and authoritative works on parliamentary procedure such as *Robert's Rules of Order*, *Cushing's Manual*, *Sturgis' Standard Code of Parliamentary Procedure* and others. We also suggest that you go to the meetings with a good lawyer and a baseball bat.

HOW TO FORM AN ORGANIZATION

People form or join organizations because they have a common interest or purpose that can best be advanced and attained through group activity. Whether the character of the organization be social, political, educational, communal, fraternal or athletic, its purpose and government are usually expressed in by-laws. They are not required to be elaborate, technical or legal.

BY-LAWS

By-laws should simply state the objects of the organization, the rights and duties of members, the qualifications of members, the number required to constitute a quorum, the dues, the necessary governing officers and how they should be elected, their terms of office, when meetings should be held and where, the order of business and, in the case of large and impersonal organizations, an authority for settling parliamentary disputes. (An organization usually adopts as its guide such works as mentioned heretofore.)

FIRST MEETING

At the first meeting of a group, temporary officers are chosen: a chairman, a secretary and a committee to prepare a draft of by-laws. The meeting is called to order by the member of the group who has assumed the leadership in the formation of the organization. He or she opens the meeting by the simple statement: "I now call the meeting to order," and asks the members to make nominations for chairman. When this announcement is made, members may ask for the floor by raising their hands, and, when recognized, offer a name in nomination. The person presiding can be nominated as can any other member present. Nominations require no seconding. A majority vote is necessary for the election of the chairman. The same procedure is required for the secretary and committee on by-laws.

The officers selected at the first meeting may serve until the next meeting or for a limited period, to be decided by a majority vote of the members present.

SECOND MEETING

At the second meeting, the report of the committee on by-laws is presented to the membership. The entire report may be accepted by a motion to adopt the report. A two-thirds vote is required. If the entire report is not acceptable to the membership, each provision may be considered separately; consideration consists of debating, amending, accepting or rejecting. The vote required on each provision is two-thirds of the membership present instead of the usual majority. Because by-laws are the fundamental basis of the organization, they should be acceptable to as many members as possible.

By-laws can be amended at any time during the life of the organization. Any proposals for changes in the by-laws require prior notice in writing to the entire membership before acting upon the proposed amendments at any meeting.

ELECTION OF OFFICERS

With the adoption of the by-laws providing for the type of officers for the organization, and the length of their terms, the organization proceeds to elect such officers. The usual officers for most groups are a president, vice-president, recording secretary, corresponding secretary, treasurer, sergeant at arms, and committees. Some have an executive secretary, a paid job, but an organization would have to be large to warrant a paid official.

All members are eligible for office when an organization is first formed. But later the by-laws may require a certain minimum period of membership as a qualification to hold office. Nominations are made by the simple statement: "I nominate so-and-so." The nominations do not require a second and a majority vote is necessary for election.

DUTIES OF OFFICERS

President: The president, as in government, is top man in an organization. Some organizations call this official "chairman." President sounds better, and is more appropriate when he performs not only the functions of presiding at meetings, but other duties in directing the organization. Chairman is the proper designation for one elected only to preside at a meeting.

Their duties as presiding officers are identical, regardless of title; they call the meeting to order, then present the order of business which the meeting is to act upon. They recognize members who desire the floor for a proposal or a discussion. They are supposed to see that everyone who wishes to speak has the opportunity, and to do as little talking themselves as possible. The presiding officer has the right to take part in a discussion. When he does, the vice-chairman should take the chair until the presiding officer has concluded his talk.

A chairman is really a moderator who directs, controls and regulates proceedings. He is neither a boss nor an antagonist and is not to be regarded as such by the members. It is the chairman's primary job to keep the meetings moving smoothly. He should prevent members from abusing their privileges without interference, but should not curb their rights. The chair must entertain all motions that are seconded and must restate them for the members. He must call for a vote on motions and declare the motion adopted or defeated on the basis of the vote. He should allow for a re-count or a roll call whenever requested to do so. When referring to himself, the presiding officer usually says: "The chair recognizes Mr. Blank" instead of "I recognize Mr. Blank."

The president or permanent chairman is usually an ex-officio member of all committees. Although he is not obligated to attend all meetings, he may if he so desires.

Secretary: The duties of a secretary are to keep the records of the organization, to record the minutes of the meetings, to handle the correspondence (unless the organization is large enough to require a corresponding secretary), such as notifying members of regular meetings or of a special meeting, reading the minutes at the meeting, etc.

The minutes of a secretary should indicate when the meeting was held, where it took place, who presided, what business was transacted, when the meeting adjourned, etc.

Treasurer: The treasurer's duties are to handle the funds of the organization, to collect the dues, to pay the bills when

authorized, to keep the books for the organization with records of income and expenditures, and to render reports on finances at the regular meetings.

Sergeant-at-Arms: The duties of the sergeant-at-arms are to assist the chairman in preserving order among the people present at a meeting, members and visitors, to act as a sort of usher by checking people at the door to see that only those entitled to be present at the meeting are admitted, and to escort anyone out if requested to do so by the chairman.

COMMITTEES

The purpose of committees is to expedite the transaction of business on matters that require more time than the meeting permits, or on matters that require time for investigation and special study. Committees are essential in a large organization, but are really not necessary for a small group that can handle its limited business at the regular membership meetings.

The types of committee may vary according to the needs of an organization. A "standing" committee has a fixed term of office and gives continuous service. A "special" committee serves temporarily to investigate and report on some special project or condition.

The top committee in most organizations is the executive committee, sometimes made up of the chairmen of the various committees, sometimes selected from the general membership. Other committees are: membership committees, athletic committees, education committees, social or house committees, committees on finance, temporary committees to deal with a temporary specific problem, etc.

Committees may be appointed by the presiding officer, or be elected by the group, depending upon the by-laws. We think it best for committees to be elected by the membership. The chairman of the committee is either designated by the presiding officer, elected by the committee, or is the person obtaining the most votes in the election. Committees should consist of an odd number of members to assure a majority vote and a minimum of stalemates. As far as possible, the by-laws governing

the conduct of a meeting or organization govern the committees as well.

Most committees are usually made up of small groups and, therefore, their meetings are less formal than regular organization meetings. Motions do not require seconding, speeches are not as restricted and limited, and the chairman attending the committee, or the president of the organization, if attending the committee meeting, participates in the discussions on a par with the other members.

Providing for numerous officers is a good thing because it distributes responsibility among more members. This is important to keep in mind in connection with committees; while good people should be placed on many committees, it is best and advisable to have as many members on committees as possible.

The committee chairman reports for the committee to the general membership meeting. Reports of the committee may consist only of information requiring no action or may contain recommendations for certain action which is often the equivalent of a proposed motion.

When there is a difference of opinion among committee members, the majority report offered is considered the committee report. The dissenting members have the right, however, to submit a minority report proposing a different course of action. Both reports must be heard or read at the same meeting. No action on the majority report is in order until the minority report is disposed of. It can be disposed of in either of two ways. (a) Any member may object to consideration of the minority report and such objection must be voted on immediately without debate. If carried, the minority report is dropped. (b) If the objection to consideration is not upheld, then a motion to substitute the minority report for the majority report is in order. If this motion is carried, the majority report is eliminated and the minority report becomes the committee report and is the only report before the body. If the motion to substitute is not carried, then the meeting proceeds to deal with the majority report.

It is well to bear in mind that any report or motion belongs to the membership.

If they are not satisfied with either report, they can dissolve the committee and act directly from the floor or appoint a new committee.

The chairman of the committee calls the meetings of the committee. If he falls or refuses to do so, or if he is absent, any two members of the committee may call a meeting. The chairman of a committee usually acts as its secretary.

If a committee fails to render a report on a matter referred to it within a reasonable time, the membership may force it to do so by drawing up a petition bearing the number of signatures required in the by-laws. This is called **discharging a committee**.

ORDER OF BUSINESS

The chairman calls the meeting to order. He must determine whether a quorum is present. The number of members required to constitute a quorum is stipulated in the by-laws, usually one more than half of the membership, or as low as one-tenth of the membership. Without a quorum, business cannot be legally conducted. The secretary reads the minutes of the previous meeting and they are adopted, perhaps with corrections, or, as read. Officers and committees make any reports they have. Old business left over from the previous meeting is transacted. New business is brought up, discussed and acted upon. At the close, the chairman says that he will entertain a motion for adjournment.

RULES OF DEBATE

The presiding officers should first recognize the mover of a proposal, or the member of a committee presenting a report, and should try to alternate recognition between those favoring and those opposing a proposition. Any member is entitled to speak on the main question and on each amendment as presented. He must confine himself to the question under consideration, must avoid personalities, and must not accuse others of ill motives. In some groups the by-laws limit each speaker to a fixed number of minutes. The meeting may vote to extend the time of a speaker if it so desires. Debate can only be halted by a motion for the previous question and a two-thirds vote is required.

VOTING RULES

There are several methods of taking a vote. The simplest is by voice—"ayes" and "noes." This may be challenged by any member who thinks that the chairman did not hear correctly, in which case the vote is taken by a show of hands, or by standing. Roll call votes, recorded by the secretary, are required in some instances. The closed ballot (written votes) also is commonly used, especially in the election of officers. Only attending members may vote, unless the by-laws specifically permit proxy voting. A tie vote defeats a motion. The chairman is allowed to break a tie, though, if he has not previously voted. Some organizations permit a chairman to vote only in case of a tie, while others allow him to vote as a regular member.

A majority vote is generally required to pass ordinary motions or to adopt ordinary actions. There are certain motions which require a two-thirds vote of those present. These generally include the following: amendments to the by-laws, to take up a question out of its proper order, to suspend the rules, to support an objection to the consideration of a question, to take up the previous question, to limit debate, to expel a member or officer, to discharge a committee, or to refer back to a committee. No vote can be made unanimous if even one member present objects.

WHAT HAPPENS TO A MOTION

A motion is a proposal for action by an organization. It is made by any member who asks the chair for the floor and is properly recognized. Most motions require a second before being placed before the group. Not more than one main motion may be considered at a time. The procedure is simple. One merely says, "I move the following." The chairman then asks if anyone seconds the motion. If it is properly seconded, the chairman announces that a motion has been made and seconded, calls for a discussion and repeats the motion on request. A motion may be voted on without discussion, but discussion is required if requested by any member.

A motion causes many things to happen. It provokes debate, suggests modifications,

clarifies the thinking and expresses the will of the group on a question. Once a motion is presented to the membership, it belongs to them to treat and dispose of in any one of several ways and can only be withdrawn with the consent of the membership.

A motion may be amended. This means that the motion may be modified or qualified by adding, substituting, or eliminating words or whole paragraphs. These changes must be relevant to the main motion.

For example, a motion is made for the organization to publish a magazine and stipulates (a) the publication to be a monthly, (b) to have two editors, (c) to cost the members \$1.00 a year, etc. This motion may be amended as follows: (a) to substitute "weekly" for "monthly," (b) to provide salaries for the two editors, (c) to eliminate the dollar charge for the magazine. All these amendments are in order because while the original motion has been amplified or qualified by the amendments, the proposal for publishing a magazine still prevails.

Amendments that are irrelevant are not permissible, such as an amendment requiring the editors to watch television. This is improper (perhaps for other reasons) because it is extraneous to the main question of proposing the publication of a magazine.

Amendments that negate the purpose of the motion, such as a proposal that the organization should not publish a magazine, are out of order because if the membership is entirely opposed to the idea, it can vote against the main motion or dismiss it in other parliamentary ways.

Other important rules governing amendments are:

1. There is no limit to the number of amendments that may be offered, but each amendment must be disposed of before a new one may be proposed.
2. After all amendments have been acted on, the meeting votes on the main motion, and all of the adopted amendments are incorporated in the main motion.
3. All amendments require a majority vote for passage.
4. A rejected amendment may not be resubmitted in identical form and no amend-

ment may be offered reversing an amendment previously adopted.

This is not all that can happen to a motion. In addition to amendments to the motion, you are also permitted to make amendments to the amendments. For example, the original motion stipulates that the magazine should have two editors. An amendment provides that the editors be paid salaries. This amendment can be amended to provide what the salary should be.

Now, if you are thinking of whether you can amend the amendment to the amendment, the answer is "No." Although this has really gone far enough, there is something else you are allowed to do, for better or worse, and that is to introduce a substitute for the motion itself or for any of the amendments or for everything that has been proposed on the question. The substitute for an amendment does not modify the amendment, but replaces it and is subject to the same rules that apply to amendments.

When amendments pile up to the point of confusing the membership, resorting to a substitute for the entire proposition may be helpful. The best way to do this, under the circumstances, is for someone to move to have a special committee designated to prepare a substitute motion for the whole.

If the motion is adopted, the committee-elect should withdraw from the meeting to try to reconcile any contradictions contained in the motion or the amendments. It should bring forth a clear substitute that expresses the intentions of most of the proposals.

Let us not lose sight of the fact that the purpose of a motion is not to create an endless chain of acts, but to get something done. In this connection, it is well to bear in mind that the motion and amendments do not necessarily conflict and that the proposer of a motion may accept the amendments without discussion or vote.

Motions that cannot be amended: These include such motions as questions of order or appeal, objections to consideration of the question, or motions to adjourn, to call for the order of the day, to vote, to withdraw a motion, to take up a question out

of proper order, to suspend the rules, to table, to take from the table, to reconsider, to consider the previous question, to postpone indefinitely, to amend an amendment, or to nominate. Motions to postpone indefinitely, to limit debate, or to recess can be amended as to time only.

DELAYING OR CANCELING CONSIDERATION OF A MOTION

It is not binding on a meeting to deal with a motion at the time it is proposed. On the contrary, the membership has the choice of postponing or renewing consideration of a motion. Here are some of the ways to attain such objectives.

Objection to consideration: Consideration of any issue may be stopped before discussion begins on the question, even though it involves interrupting the speaker, by objecting to its consideration. This objection may be made by any member and does not require a second. Objection to consideration calls for an immediate vote without debate or amendment and requires a two-thirds vote. If carried, the motion is dropped for all time. The purpose of the act is to prevent the meeting from dealing with a question that may be offensive. This reason should be primary. Other reasons may be because it might waste the time of the meeting or it may be inappropriate to deal with the question at the time. This action is very drastic and should not be employed to gag any member except the village idiot at his worst.

Motion to postpone indefinitely: This is a polite way of killing a motion, at least for the moment. It differs from "Objection to consideration" insofar as the motion to postpone indefinitely and the motion itself are debatable and cannot be made while a member has the floor. This motion requires a second and calls for a majority vote. It cannot be amended and cannot be brought up again.

Motion to "lay on the table": If the meeting does not want to consider the motion at all, the procedure is to make a motion to "lay the question on the table." This suspends consideration of the main motion and amendments until such time

as the group chooses to take it up again, which can be later at the same meeting after other business has been transacted or at any subsequent meeting. This motion must be seconded, requires a majority vote, may not be debated or amended or postponed. The only way to bring the motion back is to move to "take it off the table."

Motion to postpone to a definite date: This is an expression of the will of the meeting to put off consideration of the proposal until later in the same session or until a subsequent meeting. The object of such an act is to delay consideration of the question until more members are present, or to enable members to acquire further information before making their decisions. This motion is debatable only as to the advisability of postponement. The subject matter of the motion is not debatable. It is open for amendment as to time only and requires a majority vote.

Motion to refer to a committee: This is usually done if a meeting feels that a question requires more time and information before it acts upon it. A motion to refer to a committee names an existing committee or creates a special committee for its consideration and may be accompanied by instructions. Seconding and a majority vote are required for passage of this motion. It can be debated only as to the desirability and advisability of referring it to the committee. It can be amended only as to the nature of the committee and as to the instructions.

HOW TO REOPEN A QUESTION

To avoid finality of decisions that may be harmful to the best interests of the members, certain actions previously taken by the members are subject to review by them. Such review may apply to matters acted upon, matters postponed, or matters delegated to committees.

Motion to reconsider: This deals with something acted upon by a meeting which the members would like to reconsider at another time during the same meeting. It is a motion that should be made by one who has voted with the majority, whether in the affirmative or the negative, and is

made because the voter has changed his mind on the matter in the light of new information. Very often a member deliberately votes for or against motions so that he can move for reconsideration of the subject later in the meeting when there may be a better chance for passing or defeating the motion because more members are present or because he will have an opportunity to persuade other members to change their votes. This is both good parliamentary procedure and democratic.

A motion to reconsider requires a second, a majority vote, is debatable and cannot be renewed. If a motion to reconsider is carried, the question is before the assembly with its original parliamentary status. Motions that cannot be reconsidered include: motions to take from the table, to lay on the table, or a motion for indefinite postponement that has been defeated.

To take from the table: This motion allows a group to take up a subject that was set aside by a motion to table it at a previous meeting. This resumption of consideration on a question rates priority over any new motions and can be introduced when there is no other business before the body. Motion to take a question from the table requires a second and a majority vote, is not debatable and cannot be amended.

A motion to rescind: This motion enables the membership to re-evaluate some action taken in the past because it may have been adopted without full understanding of the consequences at that time. The point of rescinding a previous act of an organization does not apply to any legally binding act committing the organization, nor to the election of members or officers. This motion calls for a second and majority vote unless the original motion involved required a two-thirds vote. It is debatable and cannot be amended.

Several important techniques for keeping informed about proceedings, preventing violations and protecting the rights of members, correcting errors, and expediting the business at hand, are:

Moving the Previous Question: This asks that the discussion be stopped at once on any motion before the body. A move for the previous question cannot interrupt the speaker. It requires a second, is not de-

batable, cannot be amended, and requires a two-thirds vote. Its purpose is to say "Let's stop talking and vote."

Point of Information: This is a method of obtaining information about what is occurring through the medium of the chairman or the speaker. This interruption request is permissible even when one is speaking. It is unusual for the speaker or the chair to ignore such a request. Since it is intended only to secure information, it is not proper to use this as a device to make a statement or delay proceedings.

Point of Order: This questions the correctness of any action at the time it occurs. The only time that a point of order can be employed *after* an action has taken place, is if it involves a violation of by-laws, constitution, or the law. It is raised on the basis of a mistake or omission in procedure, of a violation of the rules of the organization, of decorum in debate, or of irrelevancy of debate and procedure. A point of order needs no seconding, cannot be amended and requires no vote.

A point of order may be raised by any member at any time. It is in the nature of a demand addressed to the chair, which is required to act immediately on the point of order raised. The procedure is as follows: A member announces, "I rise to a point of order." This automatically halts any discussion or action until the chairman rules on the point of order. If the chairman concurs, he announces that the point of order was well taken, and proceeds to correct whatever is in question.

Appeal: If any other member takes exception to this ruling, he may appeal from the decision of the chair. Another basis for an appeal may result when the chair declares the point of order not well taken. This appeal is usually made by the person raising the point of order. All appeals require a second, are debatable and are subject to a majority vote of the membership. If they vote for the appeal, the chairman's decision is reversed. If they vote against the appeal, the chairman's decision is upheld. In the event of a tie vote, the chairman is sustained. If the chairman is a member of the organization, he has the right to vote and may make the tie.

Discussions on some appeals are not customary, such as questions of indecorum, violation of rules of speaking, or order of business.

Sometimes the chairman is in doubt on a point of order. When he is, he may defer to someone present for advice, or ask the members to discuss and vote on the point of order. This is the only time that a point of order is debatable. Their vote determines the chairman's decision.

Motion to adjourn: This motion is in order at any time, but should be employed with discretion. Obviously, it should not interfere with the organization's efforts to get business done. This motion requires a second, is not debatable, cannot be amended, and must be voted on immediately. A majority vote is necessary. Any motion for adjournment that refers to a specific time or place for the next meeting is subject to debate and amendment.

We have tried to project the reader into actual participation in the forming of an organization and the conduct of a meeting, and we have given more attention to the processes than to the discussion of technical rules. In following this course, we may have omitted some matters that do not occur at every meeting, but that do happen occasionally and should be understood.

Removal of officers: This is sometimes an unhappy necessity. Misconduct of an officer may involve neglect of duties, abuse of privileges or incompetence. The removal of an officer is accomplished by preferring charges which should be of a serious nature and supported by proof. The charges may be considered at a general meeting or referred to a committee to investigate and to recommend a course of action. A two-thirds vote of the members present is required to remove an officer. A motion to remove an officer is debatable.

Expulsion of members: If a member violates his obligations and duties or is involved in an act that may bring disrepute to the organization, he is subject to charges and a hearing before a committee or the membership and can be expelled by a two-thirds vote. This action is debatable. Obviously, such actions should not be undertaken unless the charges are serious and

supported by substantial proof. It would be deplorable if the exercise of such a drastic action were based on a frivolous issue or personal bias. Sometimes the behavior of a member at a meeting requires disciplinary action in the form of a motion for immediate expulsion. This is not debatable and requires a two-thirds vote.

Question of privilege: A member may interrupt a meeting at any time to raise a question involving the comfort or convenience of the membership. It may concern such matters as the physical condition of the meeting hall, the seating of the members, the conduct of persons present, or the ability to hear speakers. This request requires no second, is not debatable, cannot be amended and is decided by the chair.

Suspension of the rules: The object of a proposal to suspend the rules is to permit a meeting to do something that is ordinarily prohibited by the rules of parliamentary procedure or by the adopted order of business. The suspension of rules is generally employed to deal with an emergency or special condition, such as permitting a guest speaker to start earlier than scheduled or allowing for the interruption of the regular order of business by a visiting committee. There are other circumstances under which the suspension of rules is permitted, but these cases are too complicated to be treated here. This motion cannot interrupt a speaker, requires a second, cannot be debated or amended, and requires a two-thirds vote.

We have endeavored to outline some of the basic rules for the benefit of the many people who want some simple knowledge of how to form an organization, how to conduct a meeting, or how to participate in one; also to help spectators at a convention understand what is going on. Beyond this, we refer you to the authorities on parliamentary procedure.

However important rules are for guidance in most human activities, there is no doubt that much is accomplished through informal discussion and action, and we do not hesitate to urge small friendly groups to do their business with as little formality and as few restrictions as possible. If this does not always work, we hope our book is there to serve you.

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CHICAGO

ILL.

& VICINITY

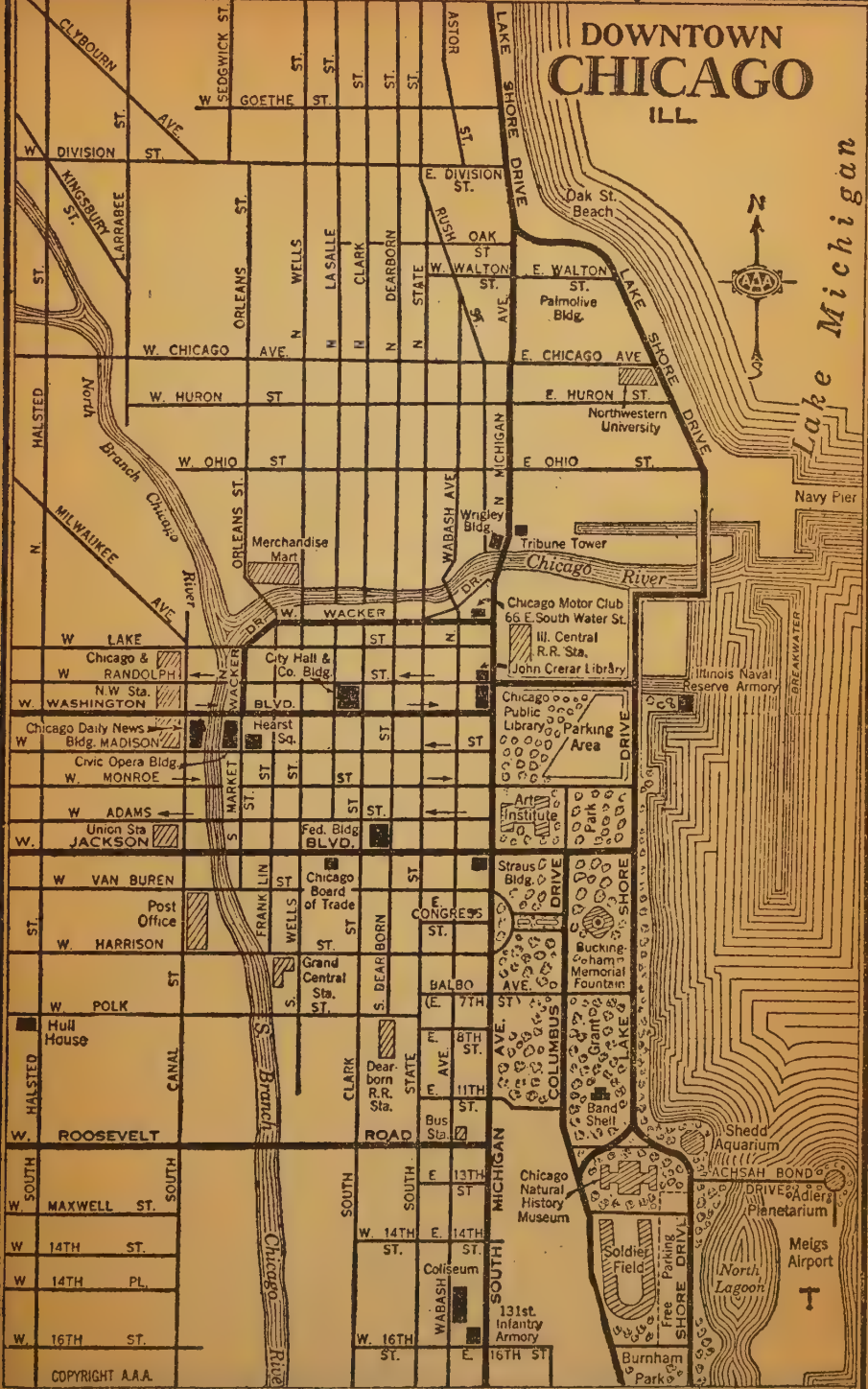
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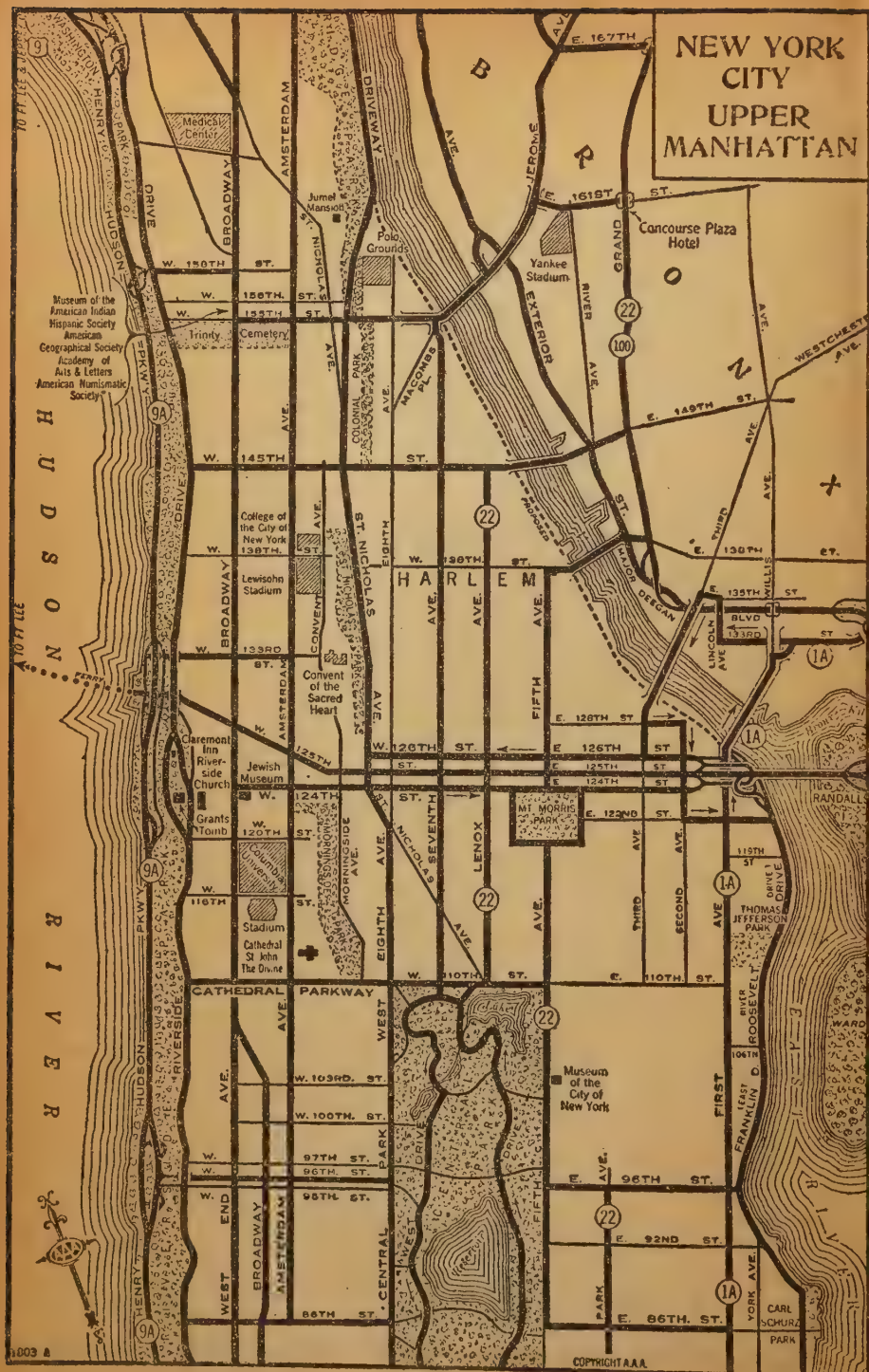
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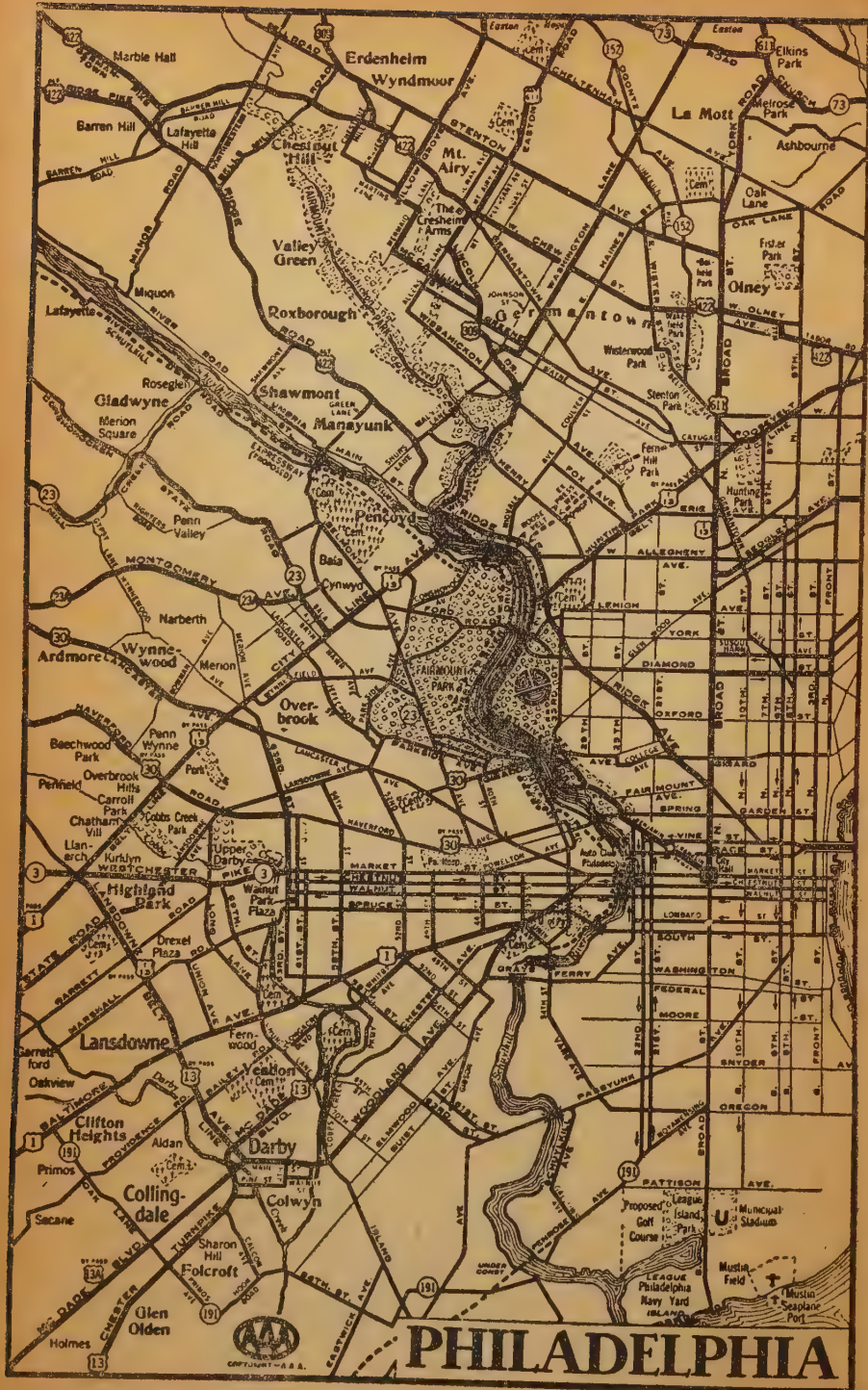




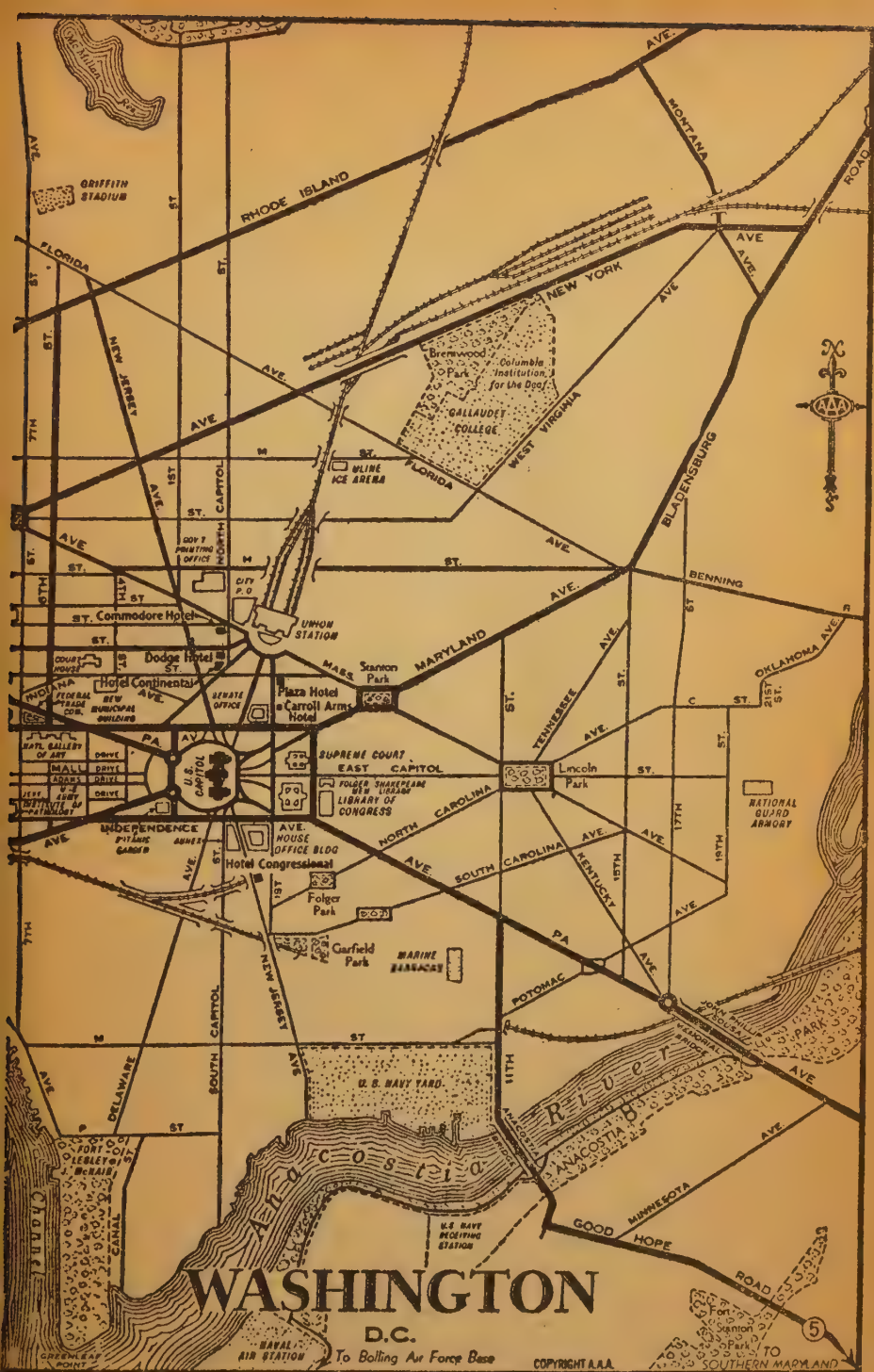
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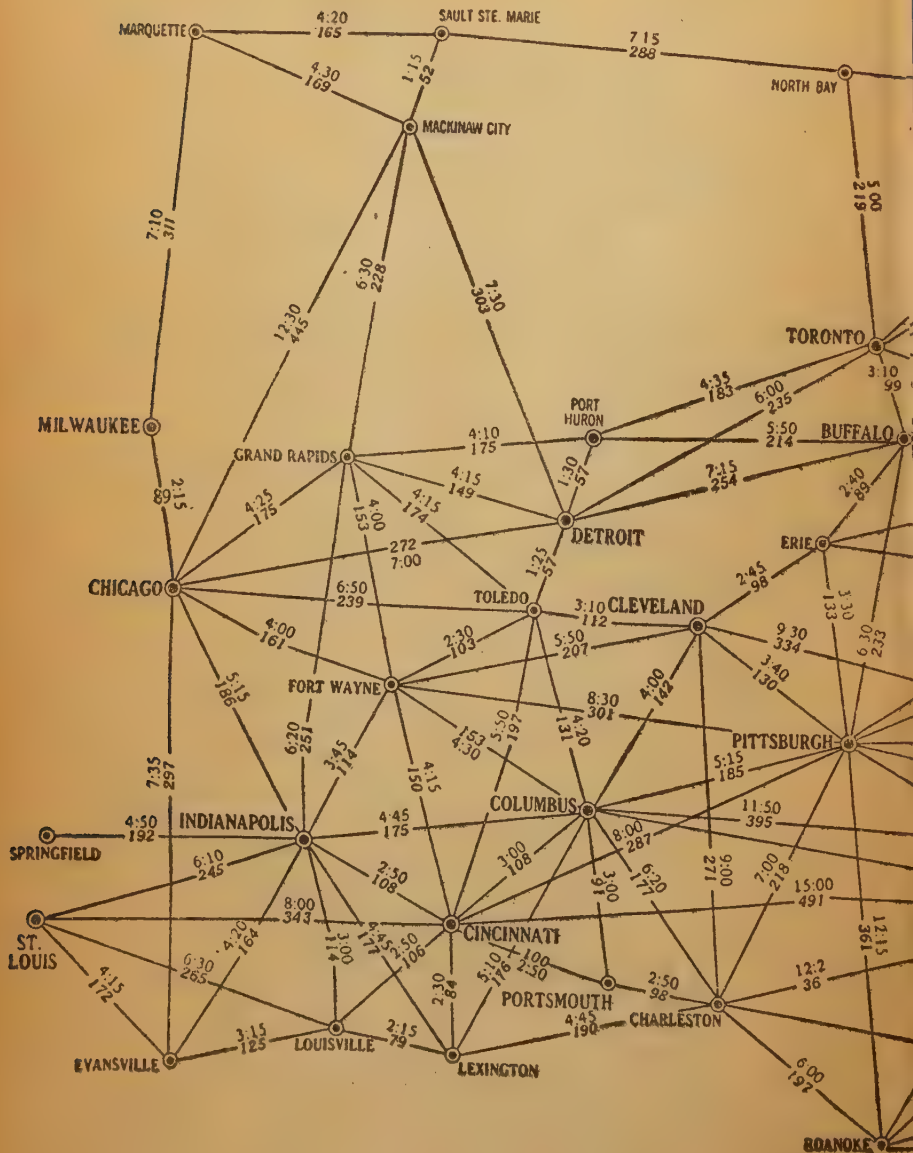


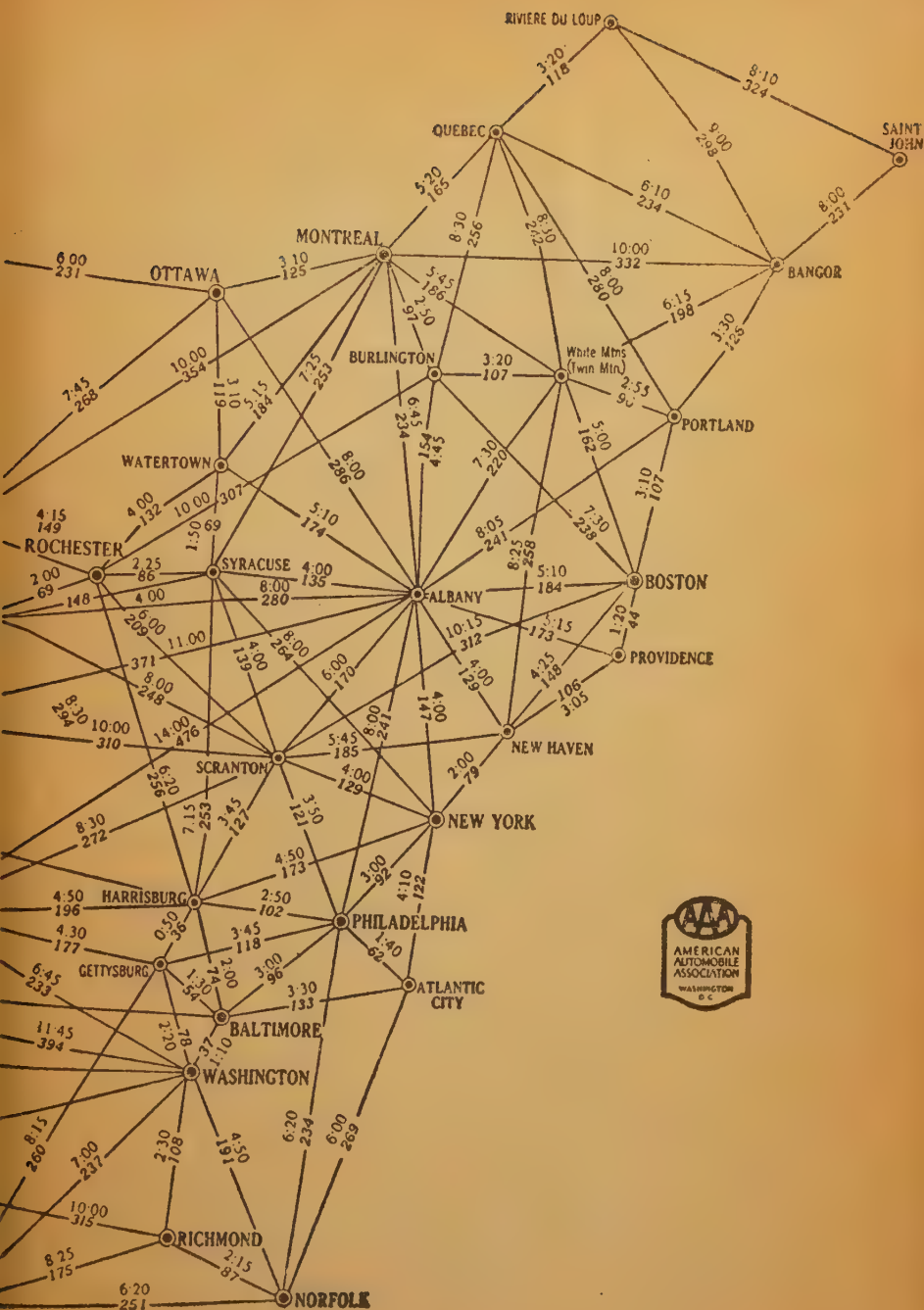




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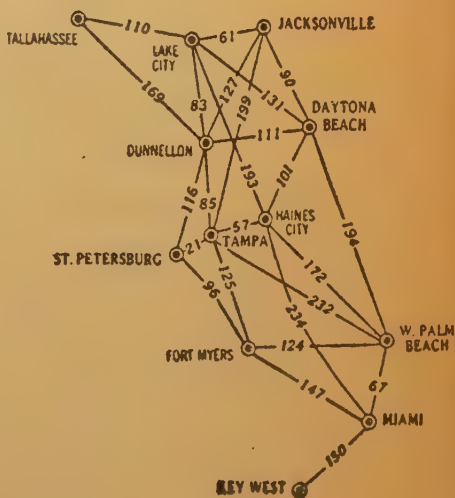
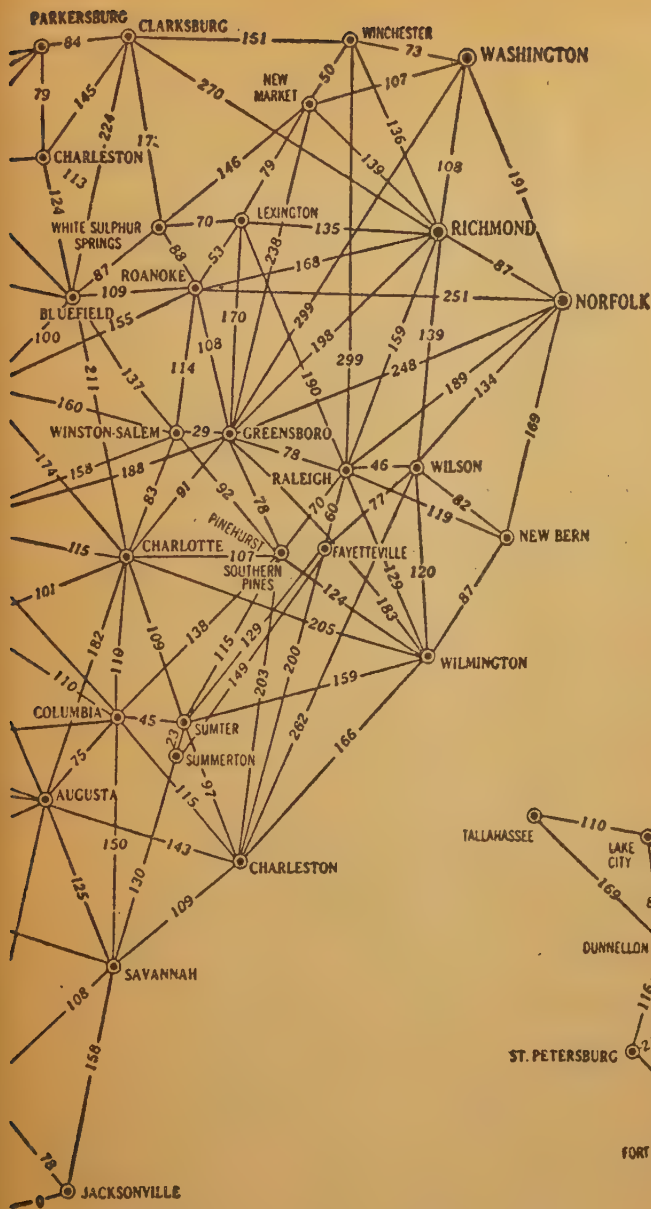
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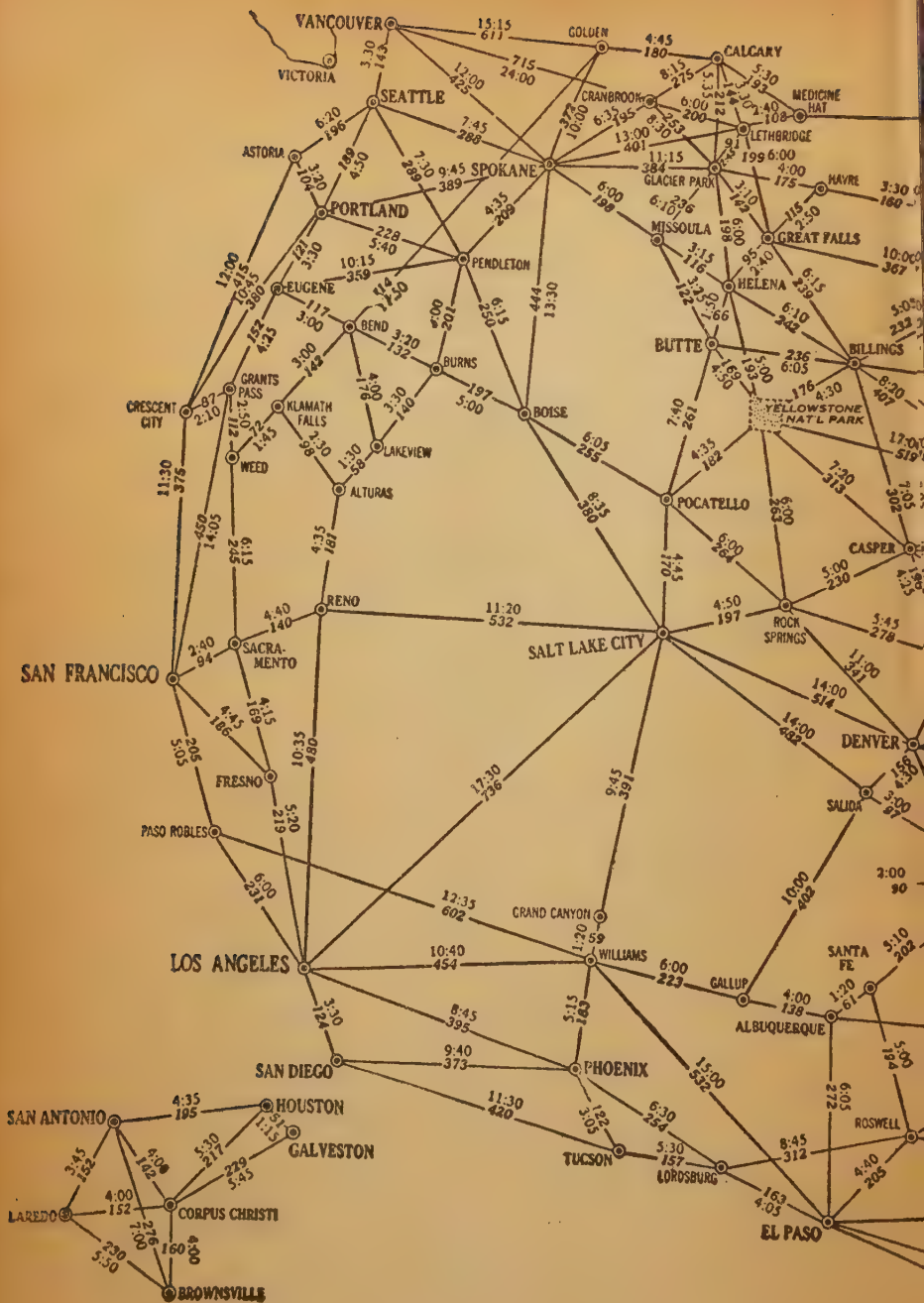




Numerals are mileages between towns.

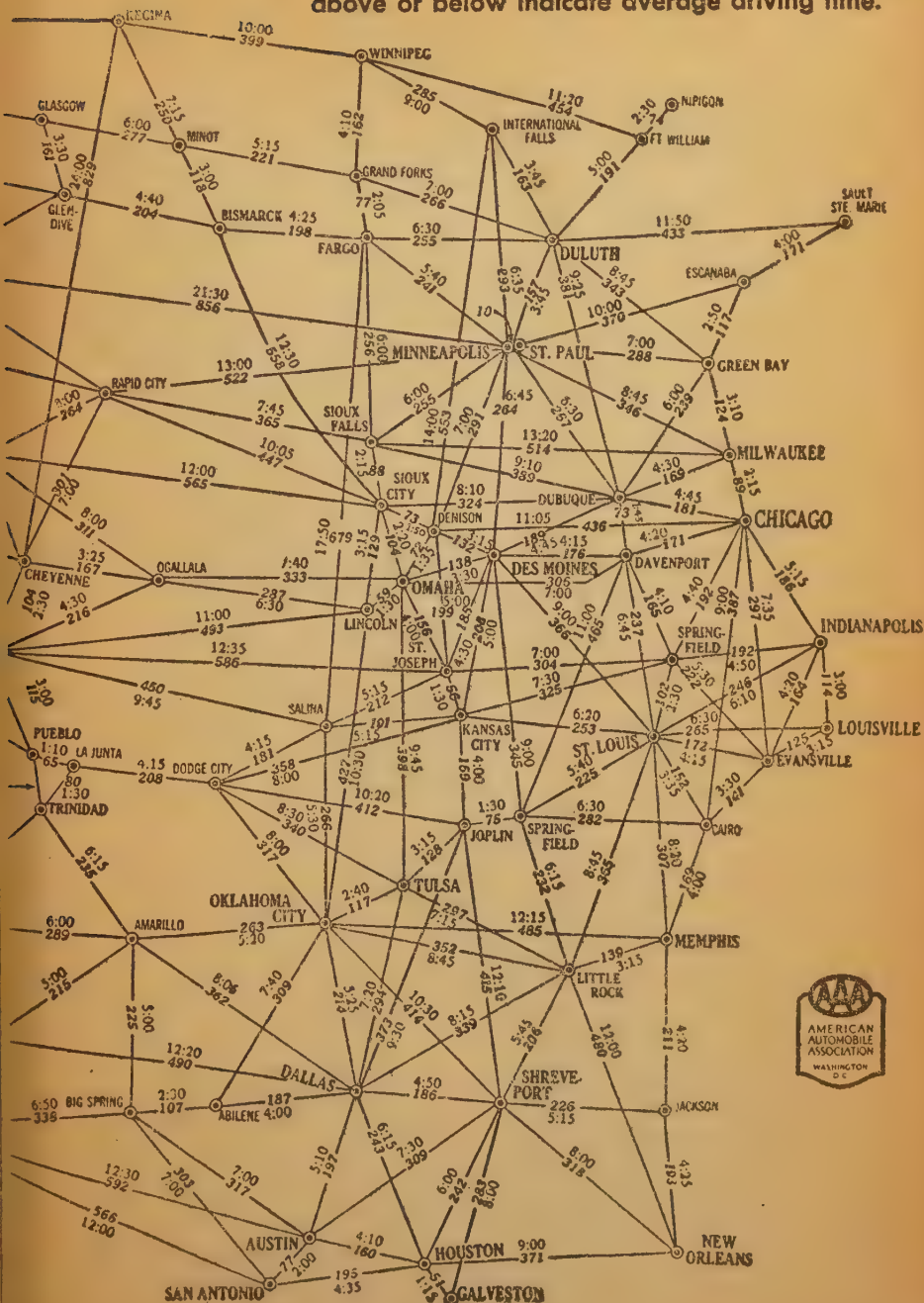


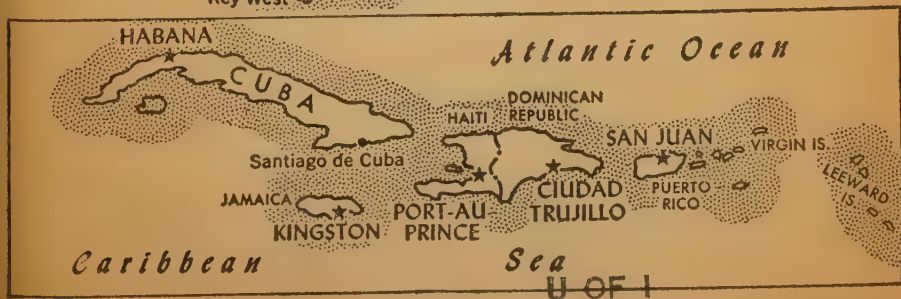


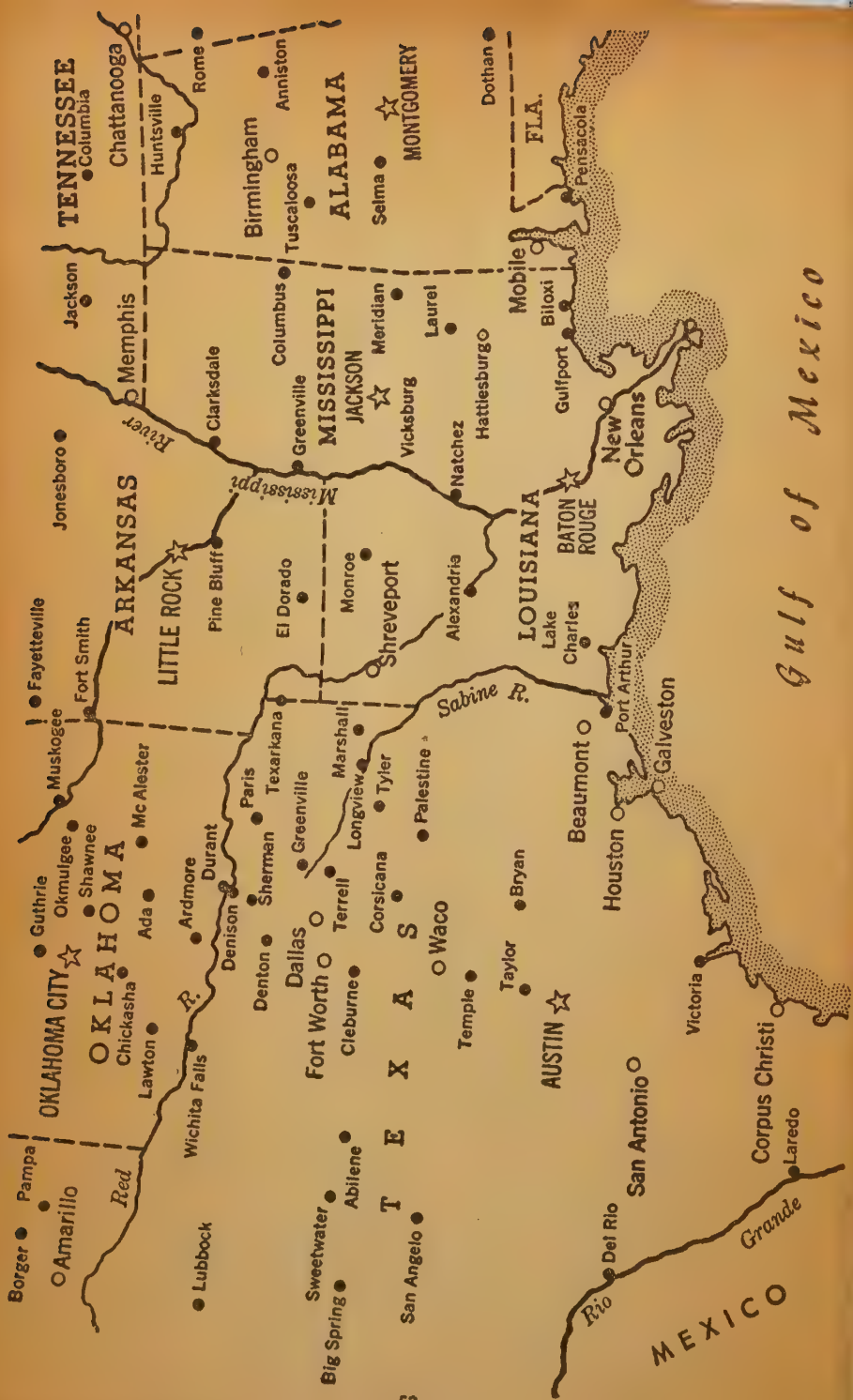


WESTERN MILEAGE CHART

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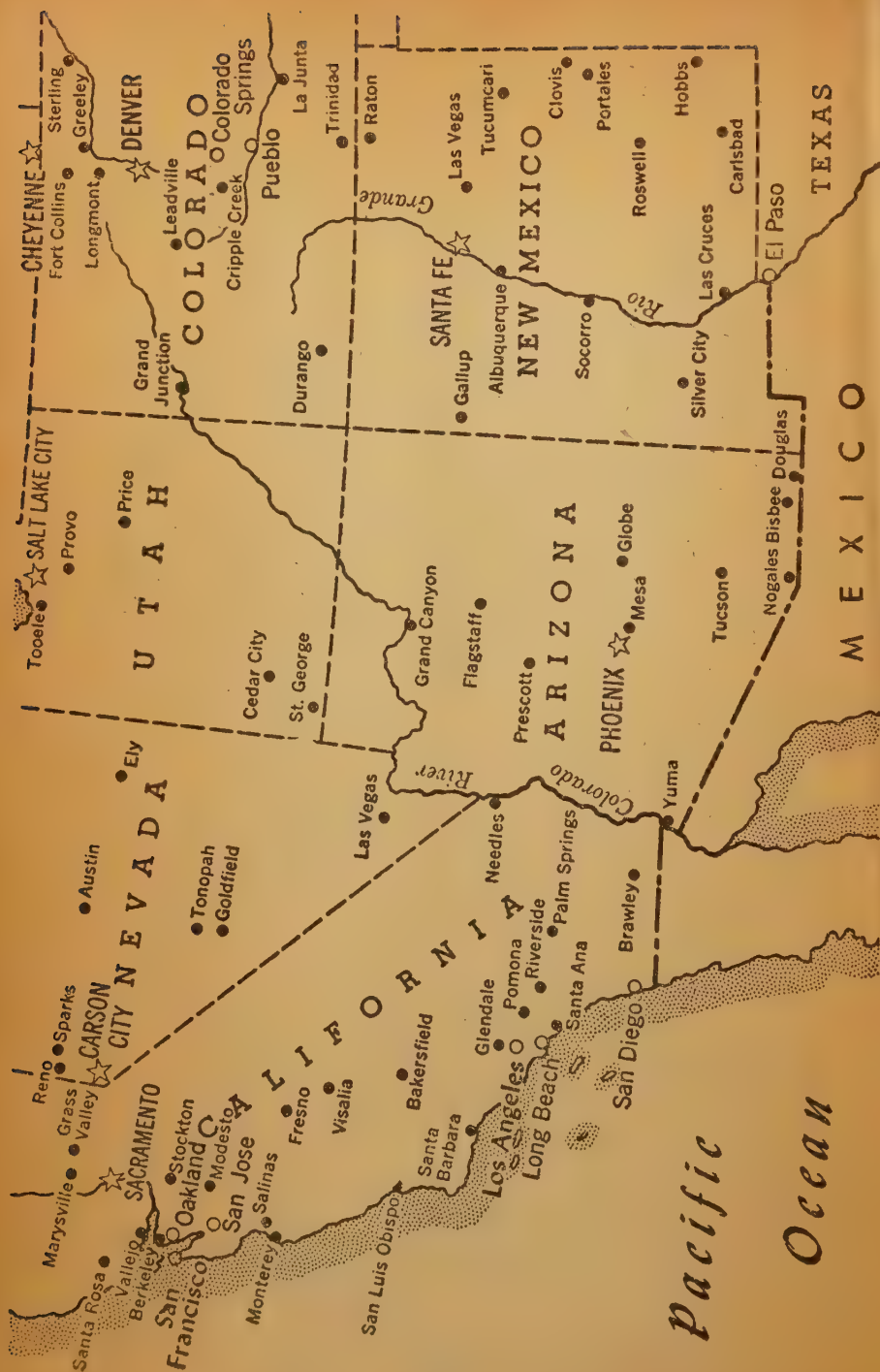


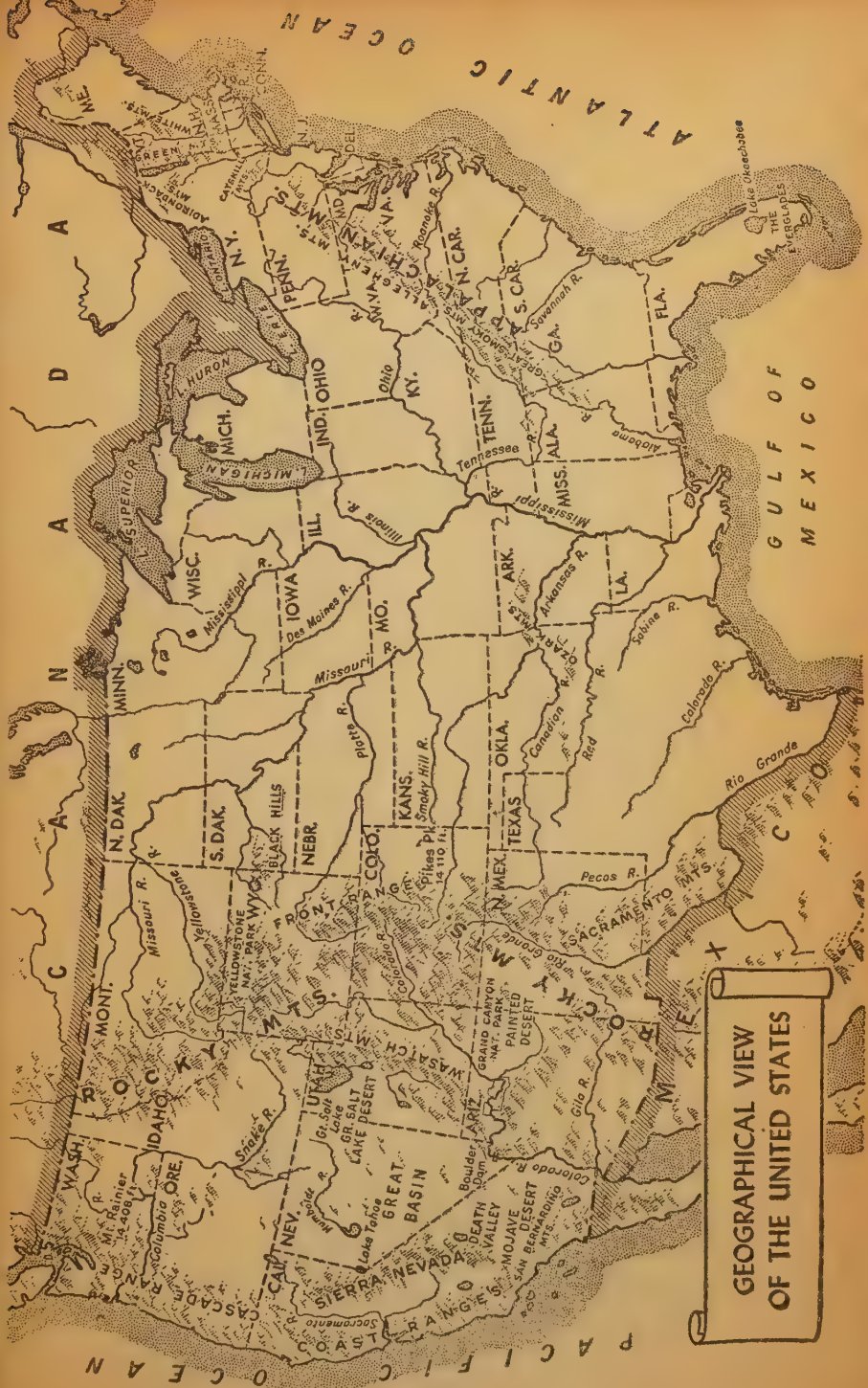
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CANADA



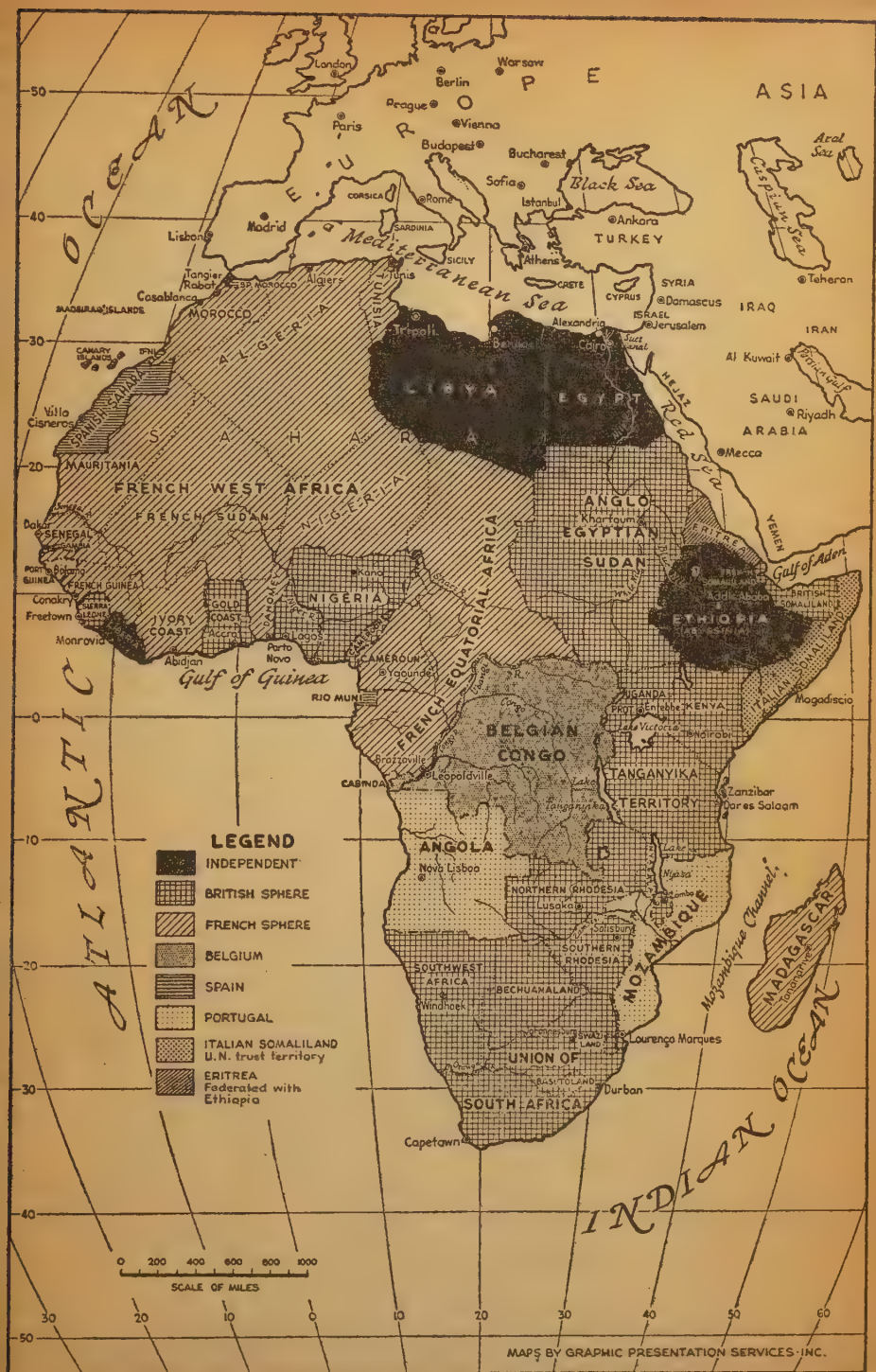




GEOGRAPHICAL VIEW
OF THE UNITED STATES

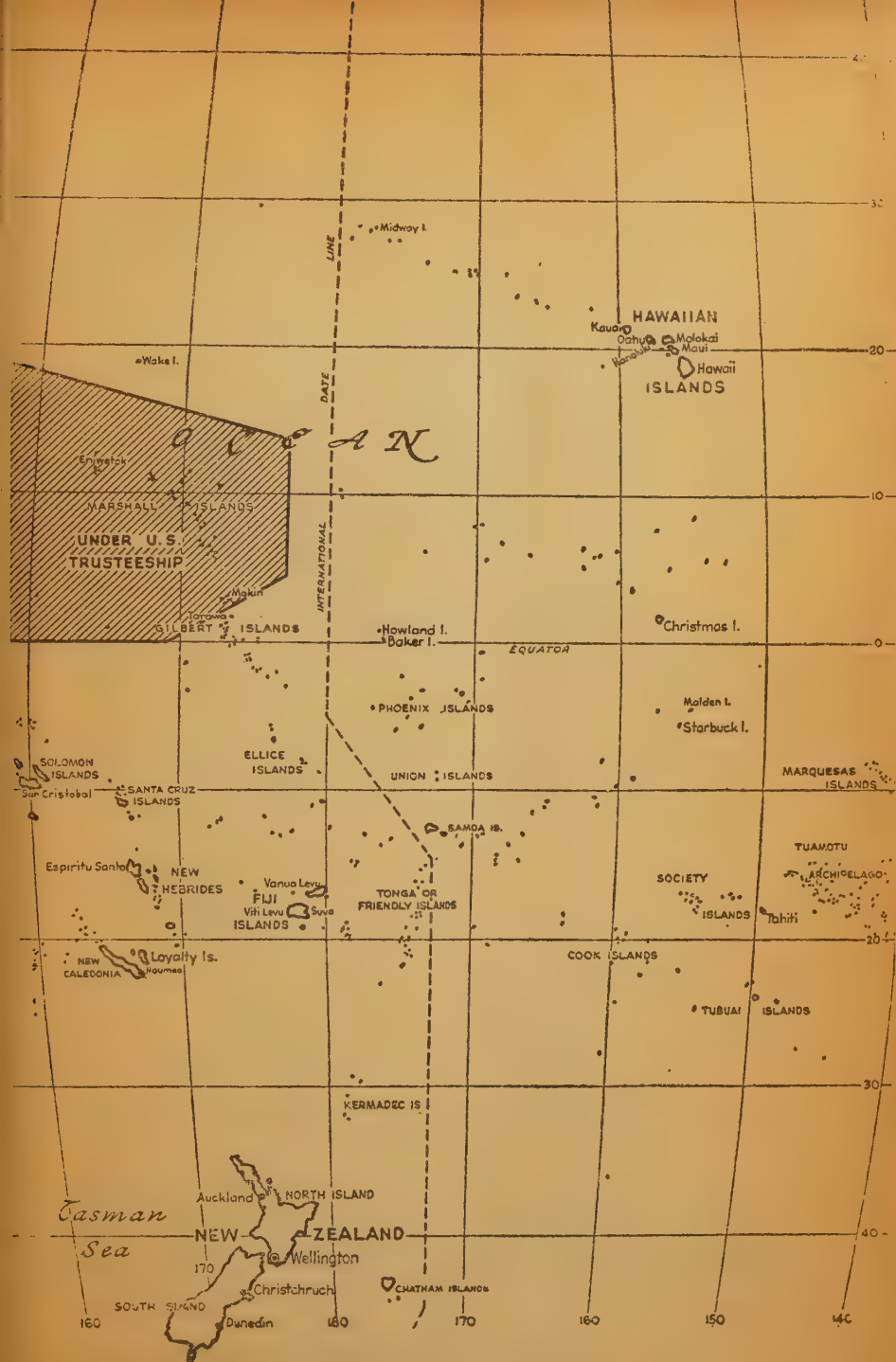


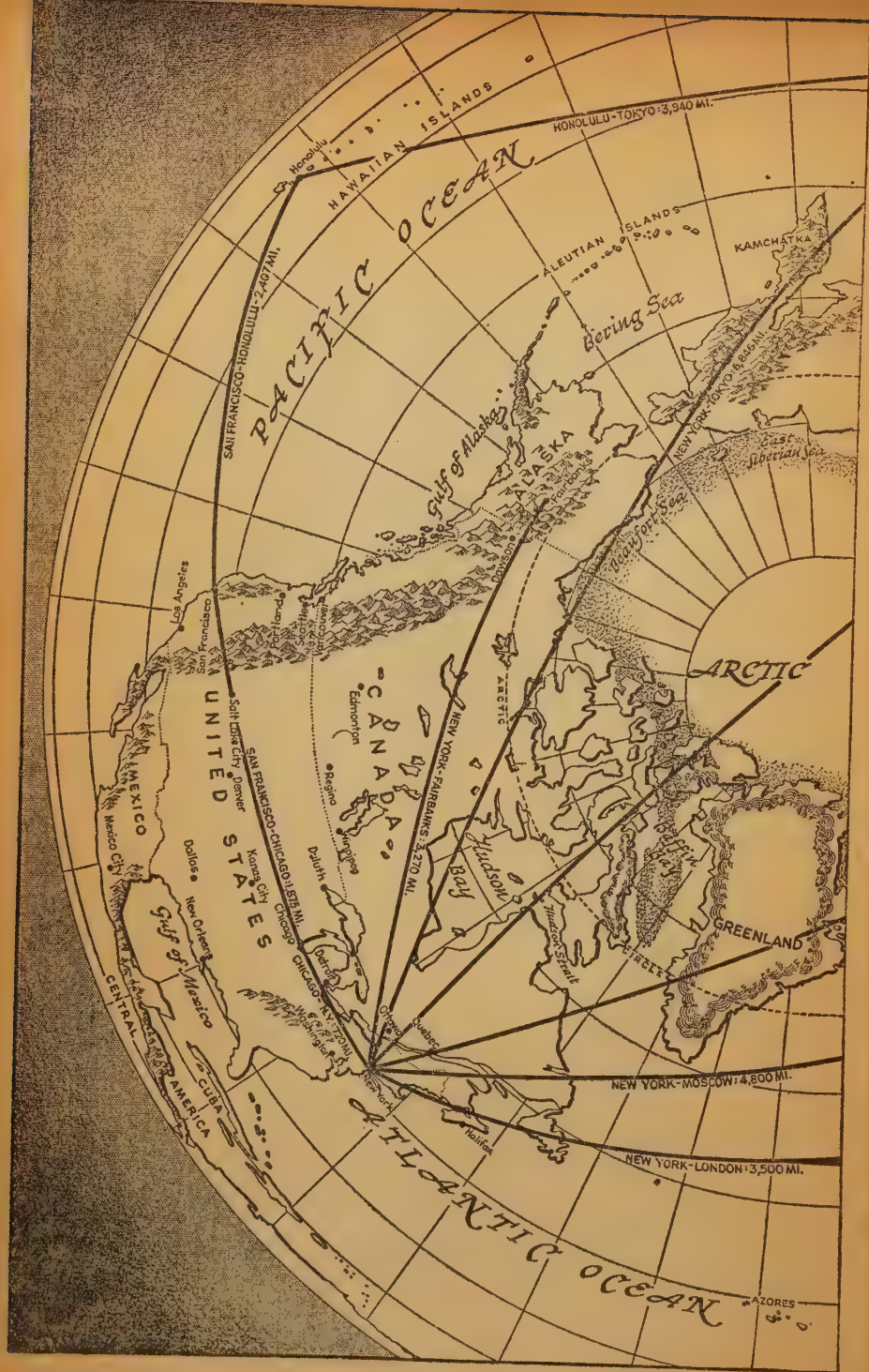












THE UNITED STATES



STATES, TERRITORIES AND CITIES

(State flower, bird, etc. are official unless otherwise indicated; dates in parentheses are those of adoption. Name of Governor is followed by party designation and date of expiration of term. Area is total of land and inland water. All 1950 population figures are final. Estimated population figures for 1951 are as of July 1. Largest cities include incorporated places only.)

ALABAMA

Capital: Montgomery.
Governor: Gordon Persons (Dem., 1955).
Organized as territory: Mar. 3, 1817.
Entered Union & (rank): Dec. 14, 1819 (22).
Seceded from Union: Jan. 11, 1861.
Re-entered Union: July 13, 1868.
Present constitution adopted: 1901.
Motto: *Audemus jura nostra defendere* (We dare defend our rights).
State flower: Goldenrod (1927).
State bird: Yellowhammer (1927).
State song: "Alabama" (1931).
Special legal holidays: Robert E. Lee's Birthday, Jan. 19; Mardi Gras (Shrove Tuesday); Thomas Jefferson's Birthday, Apr. 13; Confederate Memorial Day, Apr. 26; Jefferson Davis' Birthday, June 3.
Nickname: Yellowhammer State.
Origin of name: From Muskogee Indian tribe meaning "good land."
1940 population & (rank): 2,832,961 (17).
1950 population & (rank): 3,061,743 (17).
1951 estimated population: 3,042,000.
Area & (rank): 51,609 sq. mi. (28).
Geographic center: In Chilton Co., 12 mi. SW of Clanton.
Number of counties: 67.
Largest cities: Birmingham (326,037); Mobile (129,009); Montgomery (106,525); Gadsden (55,725); Tuscaloosa (46,396).
State forests: 7 (14,368 ac.).
State parks: 27 (38,083 ac.).
State general revenue (1951): \$205,194,000.
State general expenditure (1951): \$209,070,000.

Alabama is the biggest heavy-industry state in the South. Cotton goods, iron and steel and saw mill products lead Alabama's manufacturing, which is centered in the mills, mines and factories in and around Birmingham, the "Pittsburgh of the South." The state is also high in the growing of nuts, corn, hay and sweet potatoes. Other interests include the making of commercial fertilizer and shipping of raw cotton, iron and steel and hardwood lumber.

Muscle Shoals, on the Tennessee River, provides a great electric power source. At Tuskegee Institute, founded by Booker T. Washington, Dr. George Washington Carver carried out his famed agricultural research. Alabama is the only state that compels all adults from 14 to 50 to undergo examination for syphilis.

The Confederacy was founded at Montgomery in Feb., 1861, and for a time the city was the Confederate capital.

In 1540, Hernando de Soto and his treasure seekers were the first white men to see the state, although Cabeza de Vaca may have preceded him in 1528.

ARIZONA

Capital: Phoenix.
Governor: Howard Pyle (Rep., 1954).
Organized as territory: Feb. 24, 1863.
Entered Union & (rank): Feb. 14, 1912 (48).
Present constitution adopted: 1911.
Motto: *Ditat Deus* (God enriches).
State flower: Flower of saguaro cactus (1931).
State bird: Cactus wren (1931).
State colors: Blue and old gold (1915).
State song: "Arizona" State Anthem" (1919).
Special legal holiday: Admission date, Feb. 14.
Nickname: Grand Canyon State.
Origin of name: From the Indian "Arizonac," meaning "little spring."
1940 population & (rank): 499,261 (43).
1950 population & (rank): 749,587 (37).
1951 estimated population: 805,000.
Area & (rank): 113,909 sq. mi. (5).
Geographic center: In Yavapai Co., 55 mi. SE of Prescott.
Number of counties: 14.
Largest cities: Phoenix (106,818); Tucson (45,454); Mesa (16,790); Douglas (9,442); Yuma (9,145).
State forests: None.
State parks: 3 (8,250 ac.).
State general revenue (1951): \$71,756,161.76.
State general expenditure (1951): \$66,046,001.52.

Agriculture is Arizona's largest revenue-producing industry. By means of irrigation, its once arid acres produce alfalfa, cotton, wheat, sorghum, vegetables, citrus fruits and dates.

Mining of copper, gold, vanadium and silver ranks next among the industries, the production of copper exceeding that of any other state. Smelting and refining are leading activities.

Phoenix, its largest city, is both a popular health resort and a busy shipper of cotton and vegetables. Douglas loads cattle and smelts copper.

With the Hopi, Navajo (the largest in numbers) and Apache tribes, Arizona has the second largest U. S. Indian population spread over fourteen reservations. It also has some of the country's most famous scenery. In the north is the Grand Canyon; in the east is the Petrified Forest.

Marcos de Niza, a Franciscan friar, entered the state in 1539 in search of the mythical seven cities of Cibola, and was followed a year later by Coronado.

ARKANSAS

Capital: Little Rock.
Governor: Francis Cherry (Dem., 1955).
Organized as territory: Mar. 2, 1819.
Entered Union & (rank): June 15, 1836 (25).
Seceded from Union: May 6, 1861.

Re-entered Union: June 22, 1868.
 Present constitution adopted: 1874.
 Motto: *Regnat populus* (The people rule).
 State flower: Apple Blossom (1901).
 State tree: Pine (1939).
 State bird: Mockingbird.
 State song: "The Arkansas Traveler" (1949).
 Special state holidays: Lee's Birthday, Jan. 19;
 World War II Memorial Day, Aug. 14.
 Nickname: Wonder State.
 Origin of name: From the Quapaw Indians.
 1940 population & (rank): 1,949,387 (24).
 1950 population & (rank): 1,909,511 (30).
 1951 estimated population: 1,910,000.
 Area & (rank): 53,102 sq. mi. (26).
 Geographic center: In Pulaski Co., 12 mi. N of
 W of Little Rock.
 Number of counties: 75.
 Largest cities: Little Rock (102,213); Fort
 Smith (47,942); North Little Rock (44,097);
 Pine Bluff (37,162); Hot Springs (29,307).
 State forests: None.
 State parks: 7 (17,907 ac.).
 State general revenue (1951): \$101,207,000.
 State general expenditure (1951): \$99,000,000.

About 90 per cent of the nation's bauxite—the source of aluminum—comes from the earth of Arkansas, which also contains North America's only known diamond mine, located in Pike County near Murfreesboro, and presently inactive.

Mostly flat, Arkansas has an equable southern climate and fertile central valleys which grow cotton, rice, wheat, corn, oats, potatoes and fruit. Other industries are oil production, lumbering and the production of whetstones and antimony ore.

Hot Springs entertains fifteen times its population in guests each year. Its forty-seven famous curative mineral springs, the only ones administered by the Federal Government, are in Hot Springs National Park in the Ouachita Mountains. Pine Bluff has the unique distinction of having the largest archery factory in the country.

Hernando de Soto was probably the first white man to see this state in 1541.

CALIFORNIA

Capital: Sacramento.
 Governor: Earl Warren (Rep., 1955).
 Entered Union & (rank): Sept. 9, 1850 (31).
 Present constitution adopted: 1879.
 Motto: *Eureka* (I have found it).
 State flower: Golden poppy (1903).
 State tree: California redwood (1937).
 State bird: California valley quail (1931).
 State animal: Grizzly bear (unofficial).
 State fish: California golden trout (1947).
 State insect: California dog-face butterfly (unofficial).
 State colors: Blue and gold (unofficial).
 State song: "I Love You, California" (1951).
 Special legal holiday: Admission date, Sept. 9.
 Nickname: Golden State.
 Origin of name: From a book by the Spaniard
 Ordóñez de Montalvo.
 1940 population & (rank): 6,907,387 (5).
 1950 population & (rank): 10,586,223 (2).
 1951 estimated population: 11,024,000.
 Area & (rank): 158,693 sq. mi. (2).
 Geographic center: In Madera Co., 35 mi. NE
 of Madera.

Number of counties: 58.

Largest cities: Los Angeles (1,970,358); San Francisco (775,357); Oakland (384,575); San Diego (334,387); Long Beach (250,767).
 State forests: 8 (70,500 ac.).
 State parks and beaches: 116 (583,548 ac.).
 State general revenue (1951): \$1,125,666,000.
 State general expenditure (1951): \$1,261,276,000.

California, celebrated for cinema and sunshine, is one of the nation's economic giants. It collects more money from raising food and catching fish than any other state and it stands high in oil production, lumbering and manufacturing. Out-of-state tourist visitors and the travel and recreation expenditures of the state's residents continue to play an important part in the expansion of trade and employment opportunities. Irrigation, in which California leads the country, makes possible the production of more than 200 commercial crops, with cotton, grapes, hay, oranges, barley, lettuce, tomatoes, potatoes and peaches topping the list. The state also leads in making wines and brandies.

Nature is spectacular. Death Valley, in the southeast, is 280 feet below sea level, the lowest spot in the nation; Mt. Whitney, a 14,495-foot peak, is the highest point in the U. S.; Lassen Peak is the only active U. S. volcano although its last eruptions were recorded in the years from 1914 to 1917; and the General Sherman Tree in Sequoia National Park is estimated to be about 3,500 years old. San Pedro is the world's largest man-made harbor, and the Bank of America National Trust and Savings Association, operated and owned by the Giamini family, is the largest private bank.

Gold, which was responsible for the state's settlement boom, is still found here, but the state's most important mineral products today are oil, natural gas, cement, sand, gravel, borax, gypsum, salt and gold.

California is a leader in industrial energy and its cities specialize in airplane making, shipbuilding, furniture manufacturing and machinery production.

California's four national parks are great tourist attractions and the San Francisco-Oakland and Golden Gate Bridges are among the world's engineering marvels.

Because written Chinese contains no alphabet, the telephone operators in Chinatown of San Francisco are unique: they have to memorize the names, addresses and telephone numbers of subscribers.

Juan Rodriguez Cabrillo, Spanish explorer, was probably the first white man to see the state in 1542.

COLORADO

Capital: Denver.
 Governor: Dan Thornton (Rep., 1955).
 Organized as territory: Feb. 28, 1861.
 Entered Union & (rank): Aug. 1, 1876 (38).
 Present constitution adopted: 1876.
 Motto: *Nil sine Numine* (Nothing without Providence).
 State flower: Rocky Mountain columbine (1899).
 State tree: Colorado blue spruce (1939).
 State bird: Lark bunting (1931).

State colors: Blue and white (1911).
 State song: "Where the Columbines Grow" (1915).
 Special legal holiday: Colorado Day, Aug. 1.
 Nickname: Centennial State.
 Origin of name: From the Spanish, meaning "red."
 1940 population & (rank): 1,123,296 (33).
 1950 population & (rank): 1,325,089 (34).
 1951 estimated population: 1,376,000.
 Area & (rank): 104,247 sq. mi. (7).
 Geographic center: In Park Co., 30 mi. NW of Pikes Peak.
 Number of counties: 63.
 Largest cities: Denver (415,786); Pueblo (63,685); Colorado Springs (45,472); Greeley (20,354); Boulder (19,999).
 State forests: 1 (70,980 ac.).
 State parks: None.
 State general revenue (1951): \$177,627,220.17.
 State general expenditure (1951): \$175,888,093.10.

Colorado, the most elevated state in the nation, with more than 52 of its peaks over 14,000 feet in height and more than 1,000 going beyond the 10,000-foot mark, began as a miner of gold but has been predominantly agricultural in recent times. Wheat, hay, beans, sugar beets, corn, potatoes, barley and truck vegetables head the crop list. Like California and Arkansas, the state has a highly developed irrigation system to counteract its dry climate and promote farming.

Colorado is one of the nation's largest producers of uranium and vanadium; also mined are gold, silver, lead, zinc, copper and molybdenum.

Pueblo, the "Pittsburgh of the West," makes iron, steel, brick, tile and foundry products. Colorado Springs is perhaps the most popular tourist center in the Rocky Mountain sector. Mount Evans Highway is the highest auto road in the world. The world's highest suspension bridge stretches 1,053 feet over the Royal Gorge of the Arkansas River. Summit Lake, 12,740 feet high, near the top of Mt. Evans, the highest lake in the U. S. reached by an auto road, is also in Colorado.

Of archeological interest are the cliffs and canyons of the southwestern part of the state dating back at least 1000 years B.C.

Coronado entered the state in 1540.

CONNECTICUT

Capital: Hartford.
 Governor: John Lodge (Rep., 1955).
 Entered Union & (rank): Jan. 9, 1788 (5).
 Present constitution adopted: 1818.
 Motto: *Qui transtulit sustinet* (He who transplanted still sustains).
 State flower: Mountain laurel (1907).
 State tree: White oak (1947).
 State bird: American robin (1943).
 State song: None.
 Nicknames: Constitution State; Nutmeg State; Land of Steady Habits.
 Origin of name: From an Indian word meaning "beside the long tidal river."
 1940 population & (rank): 1,709,242 (31).
 1950 population & (rank): 2,007,280 (28).
 1951 estimated population: 2,038,000.
 Area & (rank): 5,009 sq. mi. (46).

Geographic center: In Hartford Co., at East Berlin.
 Number of counties: 8.
 Largest cities: Hartford (177,397); New Haven (164,443); Bridgeport (158,709); Waterbury (104,477); Stamford (74,293).
 State forests: 26.
 State parks: 56.
 State general revenue (1950): \$168,935,922.08.
 State general expenditure (1950): \$208,343,421.61.

Connecticut earned its sobriquet, the "Arsenal of the Nation," by its ability to turn out firearms and ammunition in early days, and from this developed an ability to turn out precision instruments of all classes.

Connecticut's cities produce a variety of products, some of which are: arms, sewing machines, airplanes, typewriters, motors, hardware, cutlery, tools, clocks, locks, pottery, machinery, brass products and hats. Hartford, which has the oldest U. S. newspaper, the *Courant*, established in 1764, is the insurance capital of the nation.

Connecticut devotes its farmland mainly to dairying, fruit growing and poultry raising. It stands high in tobacco growing and no crop in the nation receives as high a price per acre as her shade-grown tobacco.

The state is a popular resort area both for its beaches on Long Island Sound and for its inland lakes and forested hills. The southwest part of the state is a suburban area of New York City.

Connecticut was the first state to have a written constitution, the *Fundamental Orders*, adopted by three original towns of Colonial days in Jan., 1639.

A Dutch trader, Adrian Block, began the exploration of the state in 1614.

DELAWARE

Capital: Dover.
 Governor: J. Caleb Boggs (Rep., 1957).
 Entered Union & (rank): Dec. 7, 1787 (1).
 Present constitution adopted: 1897.
 Motto: Liberty and independence.
 State flower: Peach blossom.
 State bird: Blue hen chicken.
 State song: "Our Delaware."
 Nicknames: Diamond State; Blue Hen State.
 Origin of name: In honor of Sir Thomas West, Lord De La Warr.
 1940 population & (rank): 268,505 (46).
 1950 population & (rank): 318,085 (46).
 1951 estimated population: 329,000.
 Area & (rank): 2,057 sq. mi. (47).
 Geographic center: In Kent Co., 11 mi. S of Dover.
 Number of counties: 3.
 Largest cities: Wilmington (110,356); Newark (6,731); Dover (6,223); New Castle (5,396); Elsmere (5,314).
 State forests: 5 (4,200 ac.).
 State parks: 2.
 State general revenue (1950): \$34,018,000.
 State general expenditure (1950): \$42,172,000.

Little Delaware, at the lowest mean elevation of any state, grows a great variety of small fruit and vegetables and is a U. S. pioneer in the industry of food canning. Peaches, strawberries, apples, corn, wheat, lima beans, asparagus, tomatoes and hay

are the leading crops. Fishing in the bay is an important industry. Delaware's chicken farms are one of the great supply sources for the big markets of the East.

Manufactures in Delaware include chemicals, vulcanized fiber, glazed kid and morocco leathers, textiles, paper, metal products, machinery, machine tools and transportation equipment of every major type. In 1844, the *Bangor*, the first iron seagoing propeller-type vessel constructed in the U. S., was launched at Wilmington.

Delaware was the first state to ratify the U. S. Constitution, on Dec. 7, 1787. During the Civil War, although a slave state, Delaware refused to secede from the Union; the southern part of the state, however, supplied many supporters to the Confederacy.

Henry Hudson discovered Delaware Bay in his exploration of 1609. First settlers in the state were Dutchmen, who arrived in 1631, but who were shortly afterwards massacred by the Indians.

DISTRICT OF COLUMBIA

(City of Washington)

Land ceded to Congress: 1788 by Maryland; 1789 by Virginia (retroceded to Virginia Sept. 7, 1846).

Seat of government transferred to D. C.: Dec. 1, 1800.

Created municipal corporation: Feb. 21, 1871.

Present form of government established: June 11, 1878.

Board of Commissioners: F. Joseph Donohue (Pres.).

Motto: *Justitia omnibus* (Justice to all).

Official flower: American beauty rose.

Origin of name: In honor of Columbus.

1940 population & (rank as city): 663,091 (11).

1950 population & (rank as city): 802,178 (9).

1951 estimated population: 811,000.

Area: Land, 61.4 sq. mi.; inland water, 7.8.

Geographic center: Near corner of Fourth and L Sts., NW.

Altitude: Highest, 420 ft.; lowest, sea level.

Location: Between Virginia and Maryland, on Potomac River.

Churches: Protestant, 425; Roman Catholic, 36; Jewish, 12; others, 4.

City-owned parks: 730 (12,500 ac.).

Telephones: 709,847.

Radio sets: 374,204.

Television sets: 175,000.

Radio stations: AM, 13; FM, 7.

Television stations: 4.

Assessed valuation (1951): \$1,738,912,993.

City tax rate (1952): \$2.15 per \$100.

Bonded debt (1952): None.

Revenue (1952): \$149,324,970.

Expenditure (1952): \$144,982,535.

The District of Columbia—identical with the City of Washington—is the capital of the U. S. and the first carefully planned capital in the world.

D. C. history began in 1790 when Congress directed selection of a new capital site, 10 miles square, along the Potomac. When the site was determined, it included thirty and three-quarters square miles on the Virginia side of the river. In 1846, however, Congress returned that area to Virginia.

President Washington had commissioned Major Pierre L'Enfant, a French engineer who had fought in the Revolution, to plan the new capital and in 1800 the government moved in. In 1814, during the War of 1812, a British force fired the capital and it was from the white paint applied to cover fire damage that the President's home came to be called the White House.

Washington's skyline is dominated by the Capitol and the Washington Monument, towering 555 feet. The Capitol, while not in the city center, is the key to the street address system. The city is laid out in rectangular blocks, created by streets intersecting at right angles. In addition, diagonal arteries fan out from various centers. Pennsylvania Avenue—the radial lines are generally named for the states—is the most famous of them, with the White House at number 1600.

The Capitol is 751 feet long and 350 feet wide. It has 431 rooms. The two wings, constructed of marble, house the Senate and the House; and the central part of the building contains the Rotunda, the Statuary Hall and the old Supreme Court chamber. Visitors may go through the building from 9 A.M. until 4:30 P.M. Congress normally convenes at noon, and the floor of the Senate and House must be cleared by 11:45 A.M. The galleries in the Senate and House chambers are open to visitors during sessions.

Washington has many other famous buildings and monuments—the Library of Congress, Jefferson Memorial, Lincoln Memorial, Grant Memorial, Tomb of the Unknown Soldier (Arlington Cemetery), Treasury Building, the Pentagon, Petersen House (where Lincoln died) and scores of others.

Washington is administered by three commissioners appointed by the President. Two of them must be residents of D. C. and the third must be a U. S. Army engineer appointed by the Chief of Engineers.

FLORIDA

Capital: Tallahassee.

Governor: Dan McCarty (Dem., 1957).

Organized as territory: Mar. 30, 1822.

Entered Union & (rank): Mar. 3, 1845 (27).

Seceded from Union: Jan. 10, 1861.

Re-entered Union: June 25, 1868.

Present constitution adopted: 1885.

Motto: In God we trust.

State flower: Orange blossom (1909).

State bird: Mockingbird (1927).

State song: "Swanee River" (1935).

Special legal holidays: Robert E. Lee's Birthday, Jan. 19; Mardi Gras (Shrove Tuesday) (in some counties); Confederate Memorial Day, Apr. 26; Jefferson Davis' Birthday, June 3.

Nickname: Sunshine State.

Origin of name: From the Spanish, meaning "feast of flowers" (Easter).

1940 population & (rank): 1,897,414 (27).

1950 population & (rank): 2,771,305 (20).

1951 estimated population: 2,961,000.

Area & (rank): 58,666 sq. mi. (21).

Geographic center: In Citrus Co., 12 mi. W of N of Brooksville.

Number of counties: 67.

Largest cities: Miami (249,276); Jacksonville (204,517); Tampa (124,681); St. Petersburg (86,738); Orlando (82,367).

State forests: 4 (204,035 ac.).

State parks: 23 (74,936 ac.).

State general revenue (1932): \$144,043,207.43.

State general expenditure (1952): \$128,534,254.15.

Agriculture is Florida's biggest steady pursuit, but hotel statistics point to its chief fame—resort and tourist business. Along its coastline, the longest of any state, dozens of communities more than double in population during the winter season when northerners flee snow and cold.

Oranges and grapefruit lead Florida's crop list, then come tomatoes, tobacco, beans, celery, potatoes and peanuts. Truck gardening, commercial fishing and cattle are leading industries. Deep-sea fishing for sport is a leading tourist hobby.

Florida's low elevation is dotted by some 30,000 small lakes and the Everglades swamp in the south. Tampa is one of the largest cigar manufacturers and Jacksonville ships lumber and turpentine. St. Augustine, founded in 1565, is the oldest town of European origin in the U. S. Key West, exclusive resort city, is the southernmost city in the U. S. and is connected to the mainland by a unique causeway.

In 1513, Ponce de León, seeking the mythical "Fountain of Youth," was the first white man to see the state.

GEORGIA

Capital: Atlanta.

Governor: Herman E. Talmadge (Dem., 1955).

Entered Union & (rank): Jan. 2, 1788 (4).

Seceded from Union: Jan. 19, 1861.

Re-entered Union: July 15, 1870.

Present constitution adopted: 1945.

Motto: Wisdom, Justice and moderation.

State flower: Cherokee rose (1916).

State tree: Live oak (1937).

State bird: Brown thrasher (1935).

State song: "Georgia" (1922).

Special state holidays: Lee's Birthday, Jan. 19;

Confederate Memorial Day, Apr. 26.

Nicknames: Cracker State; Empire State of the South.

Origin of name: In honor of George II of England.

1940 population & (rank): 3,123,723 (14).

1950 population & (rank): 3,444,578 (13).

1951 estimated population: 3,485,000.

Area & (rank): 58,876 sq. mi. (20).

Geographic center: In Twiggs Co., 18 mi. SE of Macon.

Number of counties: 159.

Largest cities: Atlanta (331,314); Savannah (119,638); Columbus (79,611); Augusta (71,588); Macon (70,252).

State forests: 2 (2,000 ac.).

State parks: 12 (36,500 ac.).

State general revenue (1951): \$228,876,399.59.

State general allocations (1951): \$217,110,506.78.

Georgia is typical of the changing South. The value of its factory products has passed the value of its farm products, and industrialization is ever increasing. Atlanta is achieving importance as an industrial

center. Cotton and lumber products, fertilizer, processed food and a great variety of other items are among the factory output of Macon, Augusta and Savannah.

Georgia ranks high in cotton, tobacco, peanuts and pecans. Georgia's peaches are nationally famous. From its vast stands of pine come more than half of all U. S. resin and turpentine. The state is one of the leaders in the value of its clay products. Cattle grazing is extensive. Georgia marble is widely used.

Warm Springs has the celebrated foundation operated to aid infantile paralysis victims. It was there that President Franklin D. Roosevelt died on April 12, 1945.

Hernando de Soto, a Spaniard, in 1540, looked over the red clay of Georgia, and General James Oglethorpe founded its first British colony Feb. 12, 1733, at Savannah.

IDAHO

Capital: Boise.

Governor: Len B. Jordan (Rep., 1955).

Organized as territory: Mar. 3, 1863.

Entered Union & (rank): July 3, 1890 (43).

Present constitution adopted: 1890.

Motto: *Esto perpetua* (It is perpetuated).

State flower: Syringa (1931).

State tree: White pine (1935).

State bird: Mountain bluebird (1931).

State song: "Our Idaho."

Nicknames: Gem State; Gem of the mountains.

Origin of name: From a Shoshoni Indian word meaning "sunup."

1940 population & (rank): 524,873 (42).

1950 population & (rank): 588,637 (43).

1951 estimated population: 590,000.

Area & (rank): 83,557 sq. mi. (12).

Geographic center: In Custer Co., 24 mi. S of W of Challis.

Number of counties: 44, plus small part of Yellowstone Park.

Largest cities: Boise (34,393); Pocatello (26,131); Idaho Falls (19,218); Twin Falls (17,600); Nampa (16,185).

State forests: 1,160,000 ac.

State parks: 4 (9,000 ac.).

State revenue (1951): general fund, \$21,769,571.24; special funds, \$62,959,718.95.

State expenditure (1951): general fund, \$11,114,605.25; special funds, \$73,238,368.19.

Idaho's huge investment in irrigation has advanced its agriculture well ahead of its mining. Idaho potatoes are eaten everywhere. The state grows apples and other fruits and wheat, corn and barley. There is light diversified manufacturing and Pocatello sells its cheese to a world market.

Idaho mines gold, silver, lead, zinc, copper and tungsten, and still has vast undeveloped mineral wealth. In its rugged central mountains is an area that is reachable only by pack horse. The forests of the state, covering at least one-third of the area, account for the fact that lumbering is extensive.

Tourist trade is important. Hunting and fishing are excellent. Sun Valley is a famed resort and attracts countless tourists to its swimming and skiing facilities, both to be enjoyed at the same time in the area.

Lewis and Clark visited Idaho in 1805 but real settlement began with the gold strike of 1860.

ILLINOIS

Capital: Springfield.

Governor: William G. Stratton (Rep., 1957).

Organized as territory: Feb. 3, 1809.

Entered Union & (rank): Dec. 3, 1818 (21).

Present constitution adopted: 1870.

Motto: State sovereignty, national union.

State flower: Violet (1908).

State tree: Oak (1908).

State bird: Cardinal (1929).

State song: "Illinois" (1925).

Nickname: Prairie State.

Origin of name: From an Indian word and French suffix meaning "tribe of superior men."

1940 population & (rank): 7,897,241 (3).

1950 population & (rank): 8,712,176 (4).

1951 estimated population: 8,820,000.

Area & (rank): 56,400 sq. mi. (23).

Geographic center: In Logan Co., 28 mi. NE of Springfield.

Number of counties: 102.

Largest cities: Chicago (3,620,962); Peoria (111,856); Rockford (92,927); East St. Louis (82,295); Springfield (81,628).

State forests: 3 (10,278 ac.).

State parks: 42 (40,000 ac.).

State general revenue (1951): \$530,388,000.

State general expenditure (1951): \$557,622,000.

Illinois anchors the Midwest like a rich giant, versatile in every big wealth-making industry. It stands high in manufacturing, coal mining, farm cash income, oil production. The sprawling Chicago district (including a slice of Indiana) is a great iron and steel producer, meat packer, grain exchange and rail center. Chicago is also a busy long-flight airport city and Great Lakes port area.

As a farmer, Illinois stands first in soy beans and high in corn, oats, wheat, barley, rye, potatoes and truck vegetables. Hog raising and dairying are important industries. The Illinois sand and gravel business is exceeded only by that of California.

Illinois manufactures almost everything. Railroad cars, clothing, furniture, tractors, liquor, watches and farm implements are some of the items made in its several cities. The biggest government arsenal in the world is located on a Mississippi island off Rock Island. Springfield contains Oak Ridge Cemetery where the body of Lincoln rests.

The year 1858 is marked in Illinois history as the date of the great debating contest between Lincoln and Stephen A. Douglas for the United States senatorship. Lincoln lost the campaign but his anti-slavery speeches won for him the presidential nomination in the subsequent presidential election.

Marquette and Joliet, in 1673, were the first known explorers of this state.

INDIANA

Capital: Indianapolis.

Governor: George N. Craig (Rep., 1957).

Organized as territory: May 7, 1800.

Entered Union & (rank): Dec. 11, 1816 (19).

Present constitution adopted: 1851.

Motto: The Crossroads of America.

State flower: Zinnia (1931).

State tree: Tulip tree (1931).

State bird: Cardinal (1933).

State song: "On the Banks of the Wabash, Far Away" (1913).

Nickname: Hoosier State.

Origin of name: Meaning "land of Indians."

1940 population & (rank): 3,427,796 (12).

1950 population & (rank): 3,934,224 (12).

1951 estimated population: 4,038,000.

Area & (rank): 36,291 sq. mi. (37).

Geographic center: In Boone Co., 14 mi. W of N of Indianapolis.

Number of counties: 92.

Largest cities: Indianapolis (427,173); Gary (133,911); Ft. Wayne (133,607); Evansville (128,636); South Bend (115,911).

State forests: 14 (68,512 ac.).

State parks: 14 (39,540 ac.).

State general revenue (1951-52): \$133,248,000.

State general expenditure (1951-52): \$125,431,000.

Indiana's fifty-one-mile Michigan water-front is one of the great industrial centers of the world, turning out iron and steel and oil products to make this state a leader in manufacturing. Its cities have some of the world's largest industrial plants and their great output is further swelled by the inland factories. The list of products is endless—automobiles, farm implements, aviation and railroad equipment, sewing machines are made from iron ore mined in the Great Lakes region.

As a farmer the state stands high in soy beans, corn, tobacco, onions, wheat, oats, rye and tomatoes. The state produces most of U. S. peppermint and spearmint oil.

Indianapolis is the second largest U. S. city not on a navigable body of water. Wyandotte Cave, the second largest in the U. S., is located in Crawford County of Southern Indiana. West Baden and French Lick are well known for their mineral springs. Indiana was one of the early states to adopt the secret ballot based on the Australian system.

La Salle probably was the first white man to pass through the state in 1671.

IOWA

Capital: Des Moines.

Governor: William S. Beardsley (Rep., 1955).

Organized as territory: June 12, 1838.

Entered Union & (rank): Dec. 23, 1846 (29).

Present constitution adopted: 1857.

Motto: Our liberties we prize and our rights we will maintain.

State flower: Wild rose (1897).

State bird: Eastern goldfinch (1933).

State colors: Red, white and blue (in state flag).

State song: "Song of Iowa."

Nickname: Hawkeye State.

Origin of name: Probably from an Indian word meaning "this is the place."

1940 population & (rank): 2,538,268 (20).

1950 population & (rank): 2,621,073 (22).

1951 estimated population: 2,625,000.

Area & (rank): 56,280 sq. mi. (24).

Geographic center: In Story Co., 5 mi. NE of Ames.

Number of counties: 99.

Largest cities: Des Moines (177,965); Sioux City (83,991); Davenport (74,549); Cedar Rapids (72,296); Waterloo (65,198).

State forests: 8 (13,512 ac.).

State parks: 89 (28,377 ac.).

State general revenue (1951-52): \$110,656,727.62.

State general expenditure (1951-52): \$115,515,-164.74.

Iowa stands in a class by itself as a producer of corn and hogs. The state's productivity often brings it the largest agricultural income in the nation. Ninety per cent of the state is under the plow and the fertility of its soil is unsurpassed anywhere. It also grows oats, soy beans, hemp, hay, popcorn, fruit, nuts and vegetables in great quantities.

Its top industrial activity is naturally centered in meat packing. Des Moines fittingly leads all cities in the publication of farm journals and is also a large insurance center. Muscatine is the largest U. S. maker of pearl buttons. Other Iowa factory products are farm implements, washing machines, fountain pens and railroad and auto equipment.

Iowa has always had a low illiteracy rate and in many years has had the lowest in the nation. The first President to be born west of the Mississippi was Herbert C. Hoover, who came from West Branch.

Marquette and Joliet first explored the state in 1673 and it was in 1773 that Julien Dubuque established the first white settlement on the site of the city that was later named in his honor.

KANSAS

Capital: Topeka.

Governor: Edward F. Arn (Rep., 1955).

Organized as territory: May 30, 1854.

Entered Union & (rank): Jan. 29, 1861 (34).

Present constitution adopted: 1861.

Motto: *Ad astra per aspera* (To the stars through difficulties).

State flower: Sunflower (1903).

State tree: Cottonwood (1937).

State bird: Western meadow lark (1937).

State song: "Home on the Range" (1947).

State march: "The Kansas March" (1935).

Nicknames: Sunflower State; Jayhawker State.

Origin of name: From a Sioux word meaning "people of the south wind."

1940 population & (rank): 1,801,028 (29).

1950 population & (rank): 1,905,299 (31).

1951 estimated population: 1,950,000.

Area & (rank): 82,276 sq. mi. (13).

Geographic center: In Barton Co., 15 mi. NE of Great Bend.

Number of counties: 105.

Largest cities: Wichita (168,279); Kansas City (129,553); Topeka (78,791); Hutchinson (33,575); Salina (26,176).

State forests: 1 (4,000 ac.).

State parks: 22 (14,394 ac.).

State general revenue (1950): \$171,418,000.

State general expenditure (1950): \$160,012,000.

Kansas finds its strength in wheat growing and flour milling. Slaughtering and

meat packing are also extensively pursued. In the western part of the state, where Dodge City recalls the old days of cattle rustling, rich prairie land sprawls over a large area and gives an abundance of winter wheat and fine grazing.

Corn, sorghums, oats, barley, soy beans and potatoes are other crops. Besides oil, Kansas mines zinc, coal, salt and lead.

The state is the geographical center of the U. S., and the geodetic center of the North American continent, and as such is the area from which official longitudes and latitudes are measured.

Wichita, a growing industrial center, is a leader in the production of military and civilian aircraft. Kansas City is a transportation, milling, and meat-packing center.

Dry since the Murray Liquor Law of 1881, Kansas repealed prohibition in March, 1949.

Coronado entered the state in 1541 in his quest for the fabled cities of gold. In pre-Civil War days, Kansas was the focal point of the nation as antislavery and proslavery factions fought for supremacy.

KENTUCKY

Capital: Frankfort.

Governor: Lawrence W. Wetherby (Dem., 1956).

Entered Union & (rank): June 1, 1792 (15).

Present constitution adopted: 1891.

Motto: United we stand, divided we fall.

State flower: Goldenrod.

State bird: Kentucky cardinal.

State song: "My Old Kentucky Home."

Special legal holidays: Robert E. Lee Day, Jan.

19; Franklin D. Roosevelt Day, Jan. 30;

Confederate Day and Jefferson Davis' Birthday, June 3.

Nickname: Blue Grass State.

Origin of name: From an Iroquoian Indian word probably meaning "meadow land" or "land of tomorrow."

1940 population & (rank): 2,845,627 (16).

1950 population & (rank): 2,944,806 (19).

1951 estimated population: 2,922,000.

Area & (rank): 40,395 sq. mi. (36).

Geographic center: In Marion Co., 3 mi. W of N of Lebanon.

Number of counties: 120.

Largest cities: Louisville (369,129); Covington (64,452); Lexington (55,534); Owensboro (33,651); Paducah (32,828).

State forests: 3 (30,022 ac.).

State parks: 23 (11,720 ac.).

Total state revenue (1951-52): \$183,965,753.

Total state expenditures (1951-52): \$180,827,667.

Kentucky prides itself on producing some of the nation's best tobacco, horses and whisky. It stands high in the production of native asphalt, hemp, coal, corn, oil.

Among the manufactured items produced by its cities are furniture, aluminum ware, brooms, shoes, lumber products, machinery, textiles and iron and steel products. Besides coal and oil, important minerals are natural gas and quarry products.

Louisville, the largest city, famed for the Kentucky Derby at Churchill Downs, has a large municipal university, distills

whisky and is a great cigarette maker. The Blue Grass country is the home of some of the world's finest race horses. Lexington, standing in the center of this country, is a leading tobaccoist. Mammoth Cave, with its many miles of underground passages, is a tourist attraction.

Kentucky was credited with a star in the Confederate flag because a secessionist group in the southwest part of the state set up a short-lived government and joined the Confederacy. The legitimate government, however, remained in the Union.

Marquette and Joliet in 1673 saw Kentucky when it was the "Dark and Bloody Ground," fiercely contested by Indian tribes. Daniel Boone explored the country in 1767.

LOUISIANA

Capital: Baton Rouge.

Governor: Robert F. Kennon (Dem., 1956).

Organized as territory: Mar. 24, 1804.

Entered Union & (rank): Apr. 8, 1812 (18).

Seceded from Union: Jan. 26, 1861.

Re-entered Union: May 29, 1865.

Present constitution adopted: 1921.

Motto: Union, justice and confidence.

State flower: Magnolia (1900).

State bird: Pelican (unofficial).

State song: "Song of Louisiana."

Special legal holidays: Robert E. Lee Day, Jan.

19; Mardi Gras (Shrove Tuesday) (in cer-

tain cities and parishes); Confederate

Memorial Day, June 3; Huey P. Long Day,

Aug. 30; All Saints Day, Nov. 1.

Nicknames: Pelican State; Creole State; Sugar State.

Origin of name: In honor of Louis XIV of France.

1940 population & (rank): 2,363,880 (21).

1950 population & (rank): 2,683,516 (21).

1951 estimated population: 2,757,000.

Area & (rank): 48,523 sq. mi. (30).

Geographic center: In Avoyelles Parish, 3 mi. SE of Marksaville.

Number of parishes (counties): 64.

Largest cities: New Orleans (570,445); Shreve-

port (127,206); Baton Rouge (125,629);

Lake Charles (41,272); Monroe (38,572).

State forests: 2 (8,800 ac.).

State parks: 11 (10,684 ac.).

State general revenue (1951): \$384,850,000.

State general expenditure (1951): \$361,732,000.

Semitropical Louisiana, with much of its land below sea level, is a natural leader in sugar cane, sweet potatoes and rice production. This state, which still calls its counties parishes after the Spanish religious divisions, is also the nation's leading fur trapper with a rich annual bag of mink, muskrat, opossum and raccoon pelts. Other products of importance are sulfur, oil, natural gas, salt, cotton and lumber. Commercial fishing is extensive.

New Orleans, home of the Mardi Gras, avoids flooding only by an expensive levee and spillway system and the world's largest concentration of drainage pumps. Her industry is making increased use of raw materials from South and Central America. The Vieux Carré, in this Old World city, called by many the "Little Paris" of the

New World, has some of the celebrated restaurants of the nation.

No state has a greater variety or abundance of game birds than Louisiana. Its state-owned wildlife sanctuaries are among the largest in the world.

Hernando de Soto, in 1540, is considered the first white man to see the state, but claims are made for Narvaez, who is reputed to have seen the state in 1528.

MAINE

Capital: Augusta.

Governor: Burton M. Cross (Rep., 1955).

Entered Union & (rank): Mar. 15, 1820 (23).

Present constitution adopted: 1820.

Motto: *Dirigo* (I guide).

State flower: White pine cone and tassel (1895).

State tree: Pine tree.

State bird: Chickadee (1927).

State song: "State of Maine Song" (1937).

Special legal holiday: Patriots' Day, Apr. 19.

Nickname: Pine Tree State.

Origin of name: From the French province of Maine.

1940 population & (rank): 847,226 (35).

1950 population & (rank): 913,774 (35).

1951 estimated population: 892,000.

Area & (rank): 33,215 sq. mi. (38).

Geographic center: In Piscataquis Co., 18 mi. N of Dover.

Number of counties: 16.

Largest cities: Portland (77,634); Lewiston

(40,974); Bangor (31,558); Auburn (23,134);

South Portland (21,866).

State forests: 1 (21,000 ac.).

State parks: 6 (133,042 ac.).

State general revenue (1950): \$71,438,000.

State general expenditure (1950): \$74,417,000.

Maine, the largest potato grower in the nation, is supposed to be the political barometer of the nation because it holds its general election a little more than a month before the other states, a situation that has brought forth the popular expression, "As Maine goes, so goes the nation." But since the state is invariably Republican, the nation sometimes fails to follow it.

Maine has the largest forest area in the East, some 16,750,000 acres in timberland and, as a result, pulp, paper making and lumbering are leading industries. In addition to the potato crops, hay, oats, buckwheat and apples are grown. Manufacturing includes textiles, shoes and fruit canning. Much poultry is raised.

Acadia National Park, on Mount Desert Island, approximately 50 miles southeast of Bangor, offers one of the finest examples of mountain and ocean views on the Atlantic.

With 2,465 lakes, hundreds of streams and a bracing summer climate, Maine is famous as a resort state. Fishing is excellent and deer, bear and other game are plentiful. Its city of Eastport is the most easterly city in the U. S., and York was the first chartered city (in 1642) in the nation.

Samuel de Champlain looked over Maine's rugged area in 1604 but the Cabots probably saw it at least a century earlier.

MARYLAND

Capital: Annapolis.
 Governor: Theodore R. McKeldin (Rep., 1955).
 Entered Union & (rank): Apr. 28, 1788 (7).
 Present constitution adopted: 1867.
 Motto: *Fatti maschii, parole femine* (Manly deeds, womanly words).
 State flower: Black-eyed susan (1918).
 State tree: White oak (1941).
 State bird: Baltimore oriole (1882).
 State colors: Black and gold (1904).
 State song: "Maryland! My Maryland!" (1939).
 Special state holidays: Maryland Day, Mar. 25; Defenders Day, Sept. 12.
 Nicknames: Free State; Old Line State.
 Origin of name: In honor of Henrietta Maria (Queen of Charles I of England).
 1940 population & (rank): 1,821,244 (28).
 1950 population & (rank): 2,343,001 (24).
 1951 estimated population: 2,441,000.
 Area & (rank): 10,577 sq. mi. (41).
 Geographic center: In Anne Arundel Co., 3 mi. E of Collington.
 Number of counties: 23, plus 1 independent city.
 Largest cities: Baltimore (949,708); Cumberland (37,679); Hagerstown (36,260); Frederick (18,142); Salisbury (15,141).
 State forests: 11 (120,766 ac.).
 State parks: 12 (7,897 ac.).
 State general revenue (1951): \$248,279,621.93.
 State general expenditure (1951): \$219,330,945.78.

Maryland, a leader in vegetable canning, is cut almost in two by the upthrust of Chesapeake Bay, and with its many streams in this area, it has probably the most river frontage of any of the states. The state is one of the largest chicken raisers in the East and the Chesapeake is the largest crabbing center in the world. In addition to all kinds of vegetables, the state also grows wheat, hay, corn, potatoes and barley. Coal, sand and gravel, cement and stone are the leading mineral products.

The manufacturing products of its cities range from airplanes, steel, clothing, chemicals to meat packing. Annapolis is the site of the U. S. Naval Academy. The State House, built in 1772, is the only one built in the Colonial period which is still in regular use by a state government. Baltimore, the largest city, is the site of the Johns Hopkins Hospital, one of the finest medical centers in the nation.

The Charter of Maryland was granted in 1632 to Lord Baltimore, who died before it had passed the Great Seal; and it was issued to his oldest son, Cecil. The first settlers landed at St. Marys in 1634.

MASSACHUSETTS

Capital: Boston.
 Governor: Christian A. Herter (Rep., 1955).
 Entered Union & (rank): Feb. 6, 1788 (6).
 Present constitution adopted: 1780.
 Motto: *Ense petit placidam sub libertate quietem* (By the sword we seek peace, but peace only under liberty).
 State flower: Mayflower (1918).
 State tree: American elm (1941).
 State bird: Chickadee (1941).
 State colors: Blue and gold (in flag and shield).

State song: None.
 Special legal holiday: Patriots' Day, Apr. 19.
 Nicknames: Bay State; Old Colony State.
 Origin of name: From two Indian words meaning "great mountain place."
 1940 population & (rank): 4,316,721 (8).
 1950 population & (rank): 4,690,514 (9).
 1951 estimated population: 4,732,000.
 Area & (rank): 8,257 sq. mi. (44).
 Geographic center: In Worcester Co., in N part of city of Worcester.
 Number of counties: 14.
 Largest cities: Boston (801,444); Worcester (203,486); Springfield (162,399); Cambridge (120,740); Fall River (111,963).
 State forests: 70 (170,000 ac.).
 State parks: 7 (4,792 ac.).
 State general revenue (1950): \$362,392,000.
 State general expenditure (1950): \$432,788,000.

From the beginning of American history, Massachusetts has led the nation in the making of textiles and Boston has been the biggest U. S. wool market. Despite the dominance of textiles, the factories of this state are famous for a great variety of products such as shoes, watches, machinery, soap and candy, machine tools, wire products, small arms and electrical machinery. The value of the state's fishing products is the highest in the Northeastern area. Boston and Gloucester have superseded Nantucket and New Bedford, of olden-day whaling fame, as the great fishing ports of contemporary America. The principal crops of this state are tobacco, potatoes, wheat, corn, oats, buckwheat and apples.

The growth of factories brought to this state an influx of foreigners and today Boston has one of the largest Irish populations in the nation. Boston became prominent as the "Cradle of Liberty" in early days and it was here that Paul Revere rode from Christ Church on Copp's Hill and the Battle of Bunker Hill was fought.

Small glacial lakes are scattered throughout the state.

The Pilgrims landed at Plymouth Rock in 1620 as the first large group to settle here but legend has it that Eric the Red and his Norsemen saw the state in the year 1000.

MICHIGAN

Capital: Lansing.
 Governor: G. Mennen Williams (Dem., 1955).
 Organized as territory: Jan. 11, 1805.
 Entered Union & (rank): Jan. 26, 1837 (26).
 Present constitution adopted: 1908.
 Motto: *Si quaeris peninsulam amoenam circumspice* (If you seek a pleasant peninsula, look around you).
 State flower: Apple blossom (1897).
 State bird: Robin (unofficial).
 State animal: Wolverine (unofficial).
 State song: "Michigan, My Michigan" (unofficial).
 Nickname: Wolverine State.
 Origin of name: From two Indian words meaning "great lake."
 1940 population & (rank): 5,256,106 (7).
 1950 population & (rank): 6,371,766 (7).
 1951 estimated population: 6,545,000.
 Area & (rank): 58,216 sq. mi. (22).

Geographic center: In Wexford Co., 5 mi. W of N of Cadillac.

Number of counties: 83.

Largest cities: Detroit (1,849,568); Grand Rapids (176,515); Flint (163,143); Dearborn (94,994); Saginaw (92,918).

State forests: 22 (3,685,244 ac.).

State parks: 57 (150,000 ac.).

State general revenue (1951): \$593,622,188.

State general expenditure (1951): \$606,598,864.

On a map of Michigan, draw an eighty-five-mile circle around Detroit and it will contain the home plants of the companies that make nine out of ten American automobiles. This vast industry, which sprang up about fifty years ago from the carriage-building business, is not the only activity of this state. Airplanes, furniture (Grand Rapids is the furniture center of the U. S.), diesel engines, hoists, pumps, boilers are among its leading items of production. Most of the nation's refrigerators are made in Michigan. Its farms grow dry beans, grapes and peaches, potatoes and sugar beets.

Michigan is the only state that is split completely in two parts. The northern peninsula is mining and timber country. The southern part is agricultural and manufacturing country. Connecting Lakes Superior and Huron is the busiest canal in the world—the Sault Ste. Marie. Its 6,000 inland lakes and 2,300 miles of Great Lakes shoreline make it a good vacation land.

Michigan has the greatest inland fisheries in the world and markets at least 20 species from carp, trout, perch, pike to lake herring. The artificial skiing on Iron Mountain is probably the highest in the world.

Jacques Cartier, in 1535, was the first white man to see the state.

MINNESOTA

Capital: St. Paul.

Governor: C. Elmer Anderson (Rep., 1955).

Organized as territory: Mar. 3, 1849.

Entered Union & (rank): May 11, 1858 (32).

Present constitution adopted: 1858.

Motto: *L'Etoile du Nord* (The North Star).

State flower: Moccasin flower (1902).

State tree: Pine (unofficial).

State bird: None.

State song: "Hail Minnesota."

Nicknames: North Star State; Gopher State.

Origin of name: From a Dakota Indian word meaning "sky-tinted water."

1940 population & (rank): 2,792,300 (18).

1950 population & (rank): 2,982,483 (18).

1951 estimated population: 2,994,000.

Area & (rank): 80,009 sq. mi. (11).

Geographic center: In Crow Wing Co., 10 mi. SW of Brainerd.

Number of counties: 87.

Largest cities: Minneapolis (521,718); St. Paul (311,349); Duluth (104,511); Rochester (29,885); St. Cloud (28,410).

State forests: 32 (2,037,065 ac.).

State parks: 63 (84,350 ac.).

State general revenue (1950): \$262,323,000.

State general expenditure (1950): \$335,005,000.

A few square miles of Northern Minnesota, in the Mesabi, Cuyuna and Vermilion Ranges, produce most of the nation's iron

ore, and provide the activity for the port of Duluth. Farm and factory are equally important in Minnesota. Its farms produce oats, butter, eggs, milk, corn, wheat, potatoes, etc. Its factory production follows the pattern of the Midwest. Machinery, furniture, foundry products, etc. are made.

St. Paul, whose twin city of Minneapolis faces it on the other side of the Mississippi, is the nation's biggest publisher of calendars and law books. With over 11,000 lakes, the state is famous for its fishing, and deer, bear and fur trapping. Lake Itasca is the source of the Mississippi.

The Arrowhead, covering ten counties in Northeastern Minnesota, and the district centering about the Detroit lakes, are famous resort regions.

In 1655, Radisson and Groseilliers, French traders from Canada, were the first white men to see the state.

MISSISSIPPI

Capital: Jackson.

Governor: Hugh L. White (Dem., 1956).

Organized as territory: Apr. 7, 1798.

Entered Union & (rank): Dec. 10, 1817 (20).

Succeeded from Union: Jan. 9, 1861.

Re-entered Union: Feb. 23, 1870.

Present constitution adopted: 1890.

Motto: *Virtute et armis* (By valor and arms).

State flower: Magnolia blossom (1900).

State tree: Magnolia (1938).

State bird: Mockingbird (1944).

State song: "Way Down South in Mississippi" (1948).

Nickname: Magnolia State.

Origin of name: From an Indian word meaning "great water."

1940 population & (rank): 2,183,796 (23).

1950 population & (rank): 2,178,914 (26).

1951 estimated population: 2,192,000.

Area & (rank): 47,716 sq. mi. (31).

Geographic center: In Leake Co., 9 mi. N of W of Carthage.

Number of counties: 82.

Largest cities: Jackson (98,271); Meridian (41,893); Biloxi (37,425); Greenville (29,936); Hattiesburg (29,474).

State forests: 1 (1,760 ac.).

State parks: 10 (10,972 ac.).

State general revenue (1950): \$132,573,383.20.

State general expenditure (1950): \$134,463,877.57.

Mississippi, the stronghold of the Old South, has until the past decade been one of the least industrialized states, with more than half its population making a living from the soil. A recent program of industrialization, however, has attracted numerous manufacturing concerns. Cotton, nevertheless, is still king. The world's largest cotton plantation of 35,000 acres is located at Scott. Other crops are corn, peanuts, oats, pecans, soybeans, rice, tung nuts, sugar cane and hay.

Mississippi's Central Hills have produced a serious soil-erosion problem due to the overemphasis placed on cotton growing through the years. Introduction of livestock and dairying and the pasture improvement programs attendant to it have helped in recent years to remedy this situation.

Mississippi was the first state to ratify the Eighteenth Amendment and is still one of the two states that bans the sale of hard liquor. In 1940, it had the second largest Negro population, Georgia having the largest. The state abounds in historical landmarks and is the home of the Vicksburg National Military Park commemorating Grant's military victory on this site.

Hernando de Soto, in 1540, was the first white man to see the state.

MISSOURI

Capital: Jefferson City.
Governor: Phil M. Donnelly (Dem., 1957).
Organized as territory: June 4, 1812.
Entered Union & (rank): Aug. 10, 1821 (24).
Present constitution adopted: 1945.
Motto: *Salvus populi suprema lex esto* (The welfare of the people shall be the supreme law).

State flower: Hawthorn (1923).
State bird: Bluebird (1927).
State colors: Red, white and blue (1913).
State song: "Missouri Waltz" (1949).
Special legal holiday: Jefferson Day, Apr. 13.
Nickname: Show-me State.
Origin of name: From an Indian word probably meaning "muddy water."
1940 population & (rank): 3,784,664 (10).
1950 population & (rank): 3,954,633 (11).
1951 estimated population: 4,043,000.
Area & (rank): 69,674 sq. mi. (18).
Geographic center: In Miller Co., 20 mi. SW of Jefferson City.
Number of counties: 114, plus 1 independent city.
Largest cities: St. Louis (856,796); Kansas City (456,622); St. Joseph (78,588); Springfield (66,731); University City (39,892).
State forests: 7 (150,000 ac.).
State parks: 23 (58,090 ac.).
State general revenue (1950): \$273,231,000.
State general expenditures (1950): \$275,135,000.

Missouri, touching both South and North, ranks highest in mining lead, making corn-cob pipes and breeding mules. Sometimes called the "saddle horse capital of the world" because of its excellent breeds, this state also grows corn, wheat, oats, barley, potatoes, tobacco and cotton on its fertile table land climbing to the Ozark Mountains. This country of rugged, timbered hills and deep valleys, has more than 10,000 swift-flowing streams. It produces automobiles, shoes, drugs, chemicals, beer and street cars.

Eads Bridge, spanning the Mississippi River at St. Louis, probably handles more freight cars than any other bridge in the world. Bagnell Dam, across the Osage River in the Ozarks, completed in 1931, created one of the largest artificial lakes in the world, running for 129 miles and having a shoreline of approximately 1,300 miles.

The homes of two of Missouri's most publicized sons—Mark Twain and Jesse James—are tourist attractions.

Missouri, like Kentucky, had a star in the Confederate flag because a minority of the state legislature adopted an ordinance of secession. The Governor and pro-secession legislature, however, were ousted and the

state remained in the Union. The French explorer, La Salle, entered Missouri in 1682.

MONTANA

Capital: Helena.
Governor: J. Hugo Aronson (Rep., 1957).
Organized as territory: May 26, 1864.
Entered Union & (rank): Nov. 8, 1889 (41).
Present constitution adopted: 1889.
Motto: *Oro y plata* (Gold and silver).
State flower: Bitterroot (1895).
State tree: Ponderosa pine (1949).
State bird: Western meadow lark (1931).
State song: "Montana" (1945).
Special legal holiday: VJ Day, Aug. 14.
Nickname: Treasure State.
Origin of name: Chosen from Mexican dictionary by J. M. Ashley. It is a Mexicanized Spanish word.
1940 population & (rank): 559,456 (39).
1950 population & (rank): 591,024 (42).
1951 estimated population: 589,000.
Area & (rank): 147,138 (3).
Geographic center: In Fergus Co., 12 mi. W of Lewistown.
Number of counties: 56, plus small part of Yellowstone National Park.
Largest cities: Great Falls (39,214); Butte (33,251); Billings (31,834); Missoula (22,485); Helena (17,581).
State forests: 7 (235,876 ac.).
State parks: 4 (2,802 ac.).
State general revenue (1950): \$57,273,000.
State general expenditure (1950): \$60,550,000.

Montana's story is the old Western story—few settlers until a gold strike in 1858 brought an influx. Mining is its present occupation, and lead, zinc, silver, coal and oil are taken from its earth.

Butte, sitting on the "richest hill in the world," is the center of the area that once supplied half of the U. S. copper (its most important mineral). Livestock, wool, lumber and dude ranching round out its interests. Agriculture is dependent on irrigation.

The state as a whole still possesses the frank character of the old days, reflected in the legend that the only reason Helena was selected as the name to replace Last Chance Gulch was because of the suggestion of profanity in the front part of that name. Glacier National Park is a popular tourist area with its rugged scenery, hunting areas and dude ranches. While little development has as yet been made, Montana offers fine potentialities for winter sports. Snow conditions are good in the winter in the National Forest Service areas.

NEBRASKA

Capital: Lincoln.
Governor: Robert B. Crosby (Rep., 1955).
Organized as territory: May 30, 1854.
Entered Union & (rank): Mar. 1, 1867 (37).
Present constitution adopted: 1875.
Motto: Equality before the law.
State flower: Goldenrod (1895).
State tree: American elm (1937).
State bird: Western meadow lark (1929).
State song: "My Nebraska" (unofficial).
Special legal holiday: Arbor Day, Apr. 22.
Nickname: Cornhusker State.

Origin of name: From an Oto Indian word meaning "flat water."
1940 population & (rank): 1,315,834 (32).
1950 population & (rank): 1,325,510 (33).
1951 estimated population: 1,348,000.
Area & (rank): 77,237 sq. mi. (14).
Geographic center: In Custer Co., 10 mi. NW of Broken Bow.
Number of counties: 93.
Largest cities: Omaha (251,117); Lincoln (98,884); Grand Island (22,682); Hastings (20,211); North Platte (15,433).
State forests: 2.
State parks: 7 (1,036 ac.).
State general revenue (1950): \$87,098,000.
State general expenditure (1950): \$84,216,000.

Nebraska lives by its expansive sea of grain, reflected in its bumper crops of rye, corn and wheat. There are more varieties of grass growing in this state, valuable for forage, than in any other state in the nation. Its sizable cattle and hog industry help to make Omaha a great stockyard and meat-packing center. Flour, freight cars, farm machinery, precision instruments, brick and tile are products of Nebraska.

One of the world's largest creameries is at Lincoln. Oil was discovered in 1939 and natural gas was discovered in 1949. In 1937, after a constitutional amendment three years earlier, Nebraska became the only state in the union to have a unicameral legislature, to which members are elected without party designation.

NEVADA

Capital: Carson City.
Governor: Charles H. Russell (Rep., 1955).
Organized as territory: Mar. 2, 1861.
Entered Union & (rank): Oct. 31, 1864 (36).
Present constitution adopted: 1864.
Motto: All for our country.
State flower: Sagebrush (1917).
State bird: Mountain bluebird (unofficial).
State colors: Blue and silver (unofficial).
State song: "Home Means Nevada" (1933).
Special state holiday: Nevada Day, Oct. 31.
Nicknames: Sagebrush State; Silver State.
Origin of name: Spanish: meaning "snow-clad."
1940 population & (rank): 110,247 (48).
1950 population & (rank): 160,083 (48).
1951 estimated population: 171,000.
Area & rank: 110,540 (6).
Geographic center: In Lander Co., 23 mi. SE of Austin.
Number of counties: 17.
Largest cities: Reno (32,497); Las Vegas (24,624); Sparks (8,203); Elko (5,393); North Las Vegas (3,875).
State forests: None.
State parks: 4 (1,600 ac.).
State general revenue (1951): \$18,558,745.
State general expenditure (1951): \$17,523,611.

Nevada, the smallest state in population, had in 1950 about one and one-half persons per square mile. It was made famous by the discovery of the fabulous Comstock Lode in 1859, and has since lived mainly on its mines which give up large quantities of gold, silver, copper, lead, zinc, quicksilver and tungsten. In 1931, the state created a new industry by writing an easy divorce

law and Reno has since become the "divorce capital of the nation." Gambling was legalized and the gaming tables now pay a two-per cent tax to add to the state's income.

Near Las Vegas, on the Colorado River, stands the Hoover Dam which has twice changed its name (Hoover to Boulder to Hoover), the highest in the world at 726 feet. The state's agricultural crop consists mainly of wheat, barley and potatoes. Carson City is the smallest state capital in population in the U. S. Nevada was the first in the world to use gas for capital punishment.

Francisco Garcés, a Franciscan friar, saw Nevada's rugged scenery in 1775.

NEW HAMPSHIRE

Capital: Concord.
Governor: Hugh Gregg (Rep., 1955).
Entered Union & (rank): June 21, 1788 (9).
Present constitution adopted: 1784.
Motto: Live free or die.
State flower: Purple lilac (1919).
State tree: White birch (1947).
State bird: None.
State song: "Old New Hampshire" (1949).
Special legal holiday: Fast Day, 4th Monday in April.
Nickname: Granite State.
Origin of name: From the English county of Hampshire.
1940 population & (rank): 491,524 (45).
1950 population & (rank): 533,242 (44).
1951 estimated population: 534,000.
Area & (rank): 9,304 sq. mi. (43).
Geographic center: In Belknap Co., 3 mi. E of Ashland.
Number of counties: 10.
Largest cities: Manchester (82,732); Nashua (34,669); Concord (27,988); Portsmouth (18,830); Berlin (16,615).
State forests: 143 (55,769 ac.).
State parks: 33 (30,976 ac.).
State general revenue (1951): \$37,270,931.
State general expenditure (1951): \$39,374,070.

New Hampshire is the only state that ever played host at the formal conclusion of a foreign war when, in 1905, Portsmouth was the scene of the treaty ending the Russo-Japanese War. The sandy and stony loam of this state needs liberal fertilization for the growing of its principal crops—fruit, truck vegetables, corn, oats, hay and potatoes. Its chief manufacturing is the production of textiles, leather goods, pulp and paper products.

New Hampshire was the first state to declare its independence from Great Britain and to adopt a constitution. Mt. Washington has recorded some of the world's strongest wind velocities, the last recording of record proportions being registered at 231 miles per hour. The state also has the largest legislative body; it varies from 350 to 400.

With 1,300 lakes and good climate for both winter sports and summer vacations, the state is highly popular as a resort area.

Martin Pring, an Englishman, was probably the first white man to see the state in 1603.

NEW JERSEY

Capital: Trenton.
Governor: Alfred E. Driscoll (Rep., 1954).
Entered Union & (rank): Dec. 18, 1787 (3).

Present constitution adopted: 1947.
 Motto: Liberty and prosperity.
 State flower: Purple violet (1913).
 State bird: Eastern goldfinch (1935).
 State tree: Red oak (1950).
 State colors: Blue and gold.
 State song: None.
 Nickname: Garden State.
 Origin of name: From the Channel Island of Jersey.
 1940 population & (rank): 4,180,165 (9).
 1950 population & (rank): 4,835,329 (8).
 1951 estimated population: 4,974,000.
 Area & (rank): 7,836 sq. mi. (45).
 Geographic center: In Mercer Co., 5 mi. SE of the State Capitol.
 Number of counties: 21.
 Largest cities: Newark (438,776); Jersey City (299,017); Paterson (139,336); Trenton (128,009); Camden (124,555).
 State forests: 10 (60,327 ac.).
 State parks: 21 (18,188 ac.).
 State general revenue (1950-51): \$317,891,000.
 State general expenditure (1950-51): \$256,993,000.

New Jersey is one of America's major industrial centers. Its more than 12,000 factories and workshops employ 323 classifications of labor. The greatest single industry is chemicals, and it is one of the foremost research centers of the world. It ranks seventh in value of goods added by manufacture, amounting to \$4,867,312,000.

Nearly 49% of the land area is devoted to agriculture. It rates high in practically all garden vegetables. Among its fruit crops are the famous cultivated blueberries, which originated in New Jersey. The poultry industry is one of the principal phases of the state's agriculture, and dairying occupies a prominent place. The farm value of New Jersey agricultural products in 1951 amounted to \$395,700,000.

The oldest U. S. highway of any length was built in Sussex and Warren counties in 1650. Sandy Hook Lighthouse, built in 1764, is the oldest in point of service in the Western Hemisphere. Near Morristown is the Seeing Eye Training School, where dogs are trained to lead the blind.

New Jersey is a popular resort state. There are over 40 beaches on its 125 miles of seashore from Sandy Hook to Cape May. There are over 1,400 miles of trout streams. Lakes and ponds total over 800. New Jersey's travel-industry income is over \$1 billion a year.

Verrazano, a Florentine sailor, is believed to have been the first white man to see New Jersey. It was settled by the Dutch in 1618, became a British Royal Province in 1702.

NEW MEXICO

Capital: Santa Fe.
 Governor: Edwin L. Mechem (Rep., 1955).
 Organized as territory: Sept. 9, 1850.
 Entered Union & (rank): Jan. 6, 1912 (47).
 Present constitution adopted: 1912.
 Motto: *Crescit eundo* (We grow as we go).
 State flower: Yucca (1927).
 State tree: Piñon (1949).
 State bird: Road runner (1949).
 State colors: Flaming red and golden orange (1915).

State song: "O, Fair New Mexico" (1916).
 Special state holiday: Arbor Day (second Friday in March).
 Nicknames: Land of Enchantment; Sunshine State.
 Origin of name: From the country of Mexico.
 1940 population & (rank): 531,818 (42).
 1950 population & (rank): 681,187 (39).
 1951 estimated population: 704,000.
 Area & (rank): 121,666 sq. mi. (4).
 Geographic center: In Torrance Co., 12 mi. W of S of Willard.
 Number of counties: 32.
 Largest cities: Albuquerque (96,815); Santa Fe (27,998); Roswell (25,738); Carlsbad (17,975); Clovis (17,318).
 State forests: None.
 State parks: 6 (78,000 ac.).
 State general revenue (1950): \$76,014,000.
 State general expenditure (1950): \$79,519,000.

Bilingual New Mexico is the only state where both English and Spanish are accepted as official languages. The two cultures of this state give it a picturesqueness that attracts many tourists. Mining and the raising of cattle and crops provide the state's chief interests. Irrigation is vital.

The state contains the largest Indian reservation in the U. S. with over 16,000,000 acres, inhabited by the Navajo tribe. The Apaches and Utes live in three other reservations in this state (the Jicarilla Apache, at Horse Lake; the Mescalero Apache, northeast of Alamogordo; the Navajo, in San Juan and McKinley counties; and the Southern Ute, in the northern part of San Juan County). Carlsbad Caverns, the largest in the world, attract many visitors annually. The highest golf course in the world, over 9,000 feet above sea level, is near Alamogordo.

The state's dry and healthful climate makes it a great recuperative mecca for tuberculars. Santa Fe, the oldest seat of government in the U. S., founded by the Spaniards in 1609-10, is a sight-seers' paradise, as well as a health resort.

Cabeza de Vaca traversed the state in 1528.

NEW YORK

Capital: Albany.
 Governor: Thomas E. Dewey (Rep., 1955).
 Entered Union & (rank): July 26, 1788 (11).
 Present constitution adopted: 1777 (last revised 1938).
 Motto: *Excelsior* (Ever Upward).
 State flower: Rose (unofficial).
 State tree: Sugar maple (unofficial).
 State bird: Bluebird (unofficial).
 State song: None.
 Nickname: Empire State.
 Origin of name: In honor of the English Duke of York.
 1940 population & (rank): 13,479,142 (1).
 1950 population & (rank): 14,830,192 (1).
 1951 estimated population: 15,026,000.
 Area & (rank): 49,576 sq. mi. (29).
 Geographic center: In Madison Co., 6 mi. E of S of Oneida.
 Number of counties: 62.
 Largest cities: New York (7,891,957); Buffalo (589,132); Rochester (332,488); Syracuse (220,583); Yonkers (152,798).

State Forest Preserves: Adirondacks, 2,177,476 ac.; Catskills, 232,422 ac.
 State parks: 79 (2,600,850).
 State general revenue (1952): \$996,217,779.41.
 State general expenditure (1952): \$993,345,469.46.

New York, with the great metropolis of New York City, is the spectacular nerve center of the nation. It leads in population, manufacturing, foreign trade, commercial and financial transactions, book and magazine publishing, theatrical production and a host of other fields.

New York City is not only a national but an international leader. It is the busiest seaport in the world; its airport at La Guardia Field was the world's largest commercial airport until supplemented by the Idlewild Field. First in manufacturing since 1824, the city today has a gigantic clothing and fur industry and also makes chemicals, paints, drugs, machinery, paper, wood and textile products and houses the tallest buildings in the world. Nearly all the rest of the state's manufacturing is done along the Hudson River north to Albany and through the Mohawk Valley and central New York to Buffalo. It includes planes, auto. bodies and parts, washing machines, typewriters, photographic and optical equipment, shirts and flour. Dairying, truck gardening, and the raising of potatoes, onions and cabbage keep the New York farmer prosperous. Wine-making is a major industry in the state.

New York's extremely rapid commercial growth may be partly attributed to Governor De Witt Clinton who pushed through the construction of the Erie Canal (Buffalo to Albany) which was formally opened in 1825. The canal, the first of the great man-made waterways of the U. S., opened a new vista of commercial expansion.

The state leads the nation and the world as a tourist attraction. The convention and tourist business is the state's fifth greatest source of income and the famous resort areas upstate in and around Lakes Champlain and George abound in winter sports.

For a short time, New York City was the U. S. Capital and George Washington was inaugurated there as the first President on April 30, 1789. It is a key state in any national election, and so significant in the life of the country that any Governor is likely to become a presidential possibility.

Henry Hudson explored New York in 1609 in his trip up the river later named in his honor. On the basis of his explorations, the Dutch bought the island of Manhattan for \$24 from the Indians in 1626.

NORTH CAROLINA

Capital: Raleigh.
 Governor: William B. Umstead (Dem., 1957).
 Entered Union & (rank): Nov. 21, 1789 (12).
 Succeeded from Union: May 20, 1861.
 Re-entered Union: July 20, 1868.
 Present constitution adopted: 1876.
 Motto: *Esse quam videri* (To be rather than to seem).
 State flower: Dogwood (1941).
 State bird: Cardinal (1943).
 State song: "The Old North State" (1927).

State colors: red and blue (1945).

Special legal holidays: Robert E. Lee's Birthday, Jan. 19; Easter Monday; Halifax Resolutions Anniversary, Apr. 12; Confederate Memorial Day, May 10; Mecklenburg Independence Day, May 20.

Nickname: Tarheel State.

Origin of name: In honor of Charles I of England.

1940 population & (rank): 3,571,623 (11).

1950 population & (rank): 4,061,929 (10).

1951 estimated population: 4,135,000.

Area & (rank): 52,712 sq. mi. (27).

Geographic center: In Chatham Co., 10 mi. NW of Sanford.

Number of counties: 100.

Largest cities: Charlotte (134,042); Winston-Salem (87,811); Greensboro (74,389); Durham (71,311); Raleigh (65,679).

State forests: 1.

State parks: 14 (18,768 ac.).

State revenue (all funds) (1951-52): \$286,383,-517.

State expenditure (all funds) (1951-52): \$271,-407,409.

North Carolina is the nation's largest tobacco and textile producer. It holds first place in the Southeast in population and in the value of its industrial and agricultural production. This production is highly diversified, with furniture, chemicals and paper constituting enormous industries. Tobacco, corn, cotton, hay, peanuts and truck and vegetable crops are of major importance. The livestock industry is growing rapidly.

The state leads the South in social and economic reforms. Its educational pay scale is the same for white and Negro teachers. Its school-bus system is the world's largest.

There are 79 state and national public parks, forests and other recreational areas, including the Great Smoky Mountains National Park and the Blue Ridge Parkway. Mt. Mitchell, on the Parkway near Asheville, is the highest mountain in the Eastern U. S. (6,684 ft. above sea level).

The largest military reservation in the U. S. (Fort Bragg) and the largest Marine amphibious training base (Camp LeJeune) are in North Carolina.

The first English colony in America was established on Roanoke Island in 1585. Virginia Dare, born there in 1587, was the first child of English parentage born in America.

NORTH DAKOTA

Capital: Bismarck.

Governor: C. Norman Brunsdale (Rep., 1955).

Organized as territory: Mar. 2, 1861.

Entered Union & (rank): Nov. 2, 1889 (39).

Present constitution adopted: 1889.

Motto: Liberty and union, now and forever: one and inseparable.

State flower: Wild prairie rose (1907).

State tree: American elm (1947).

State bird: Western meadow lark (1947).

State song: "North Dakota Hymn" (1947).

Nickname: Flickertail State.

Origin of name: From the Dakota tribe, meaning "allies."

1940 population & (rank): 641,935 (39).

1950 population & (rank): 619,636 (41).

1951 estimated population: 605,000.

Area & (rank): 70,665 sq. mi. (16).

Geographic center: In Sheridan Co., 5 mi. SW of McClusky.

Number of counties: 53.

Largest cities: Fargo (38,256); Grand Forks (26,836); Minot (22,032); Bismarck (18,640); Jamestown (10,697).

State forests: None.

State parks: 5 (2,981 ac.).

State general revenue (1950): \$58,595,000.

State general expenditure (1950): \$88,021,000.

North Dakota, politically progressive, operates the only state-owned bank, flour mill and grain elevator in the nation. The state owes its main activity to agriculture with over 87 per cent of its acreage devoted to the growth of barley, wheat, rye, oats. Most of its manufacturing consists of dairy products.

The finest farming land is in the Red River Valley, celebrated in song. Cattle raising is centered in the Missouri Valley.

"Number One Northern Hard," a wheat first grown in this state, still brings premium prices for its excellence of quality. Sacajawea, a Shoshoni Indian woman, is probably North Dakota's most notable person. In 1805 she joined Lewis and Clark and made herself so useful as guide and diplomat that the expedition might have been lost without her. Geologists believe that this state holds two-thirds of our lignite.

The geographic center of the North American continent is located in Pierce County, latitude 48°10'N, longitude 100°10'W.

A French trader in furs, Verendrye, entered the state from Canada in 1738.

OHIO

Capital: Columbus.

Governor: Frank J. Lausche (Dem., 1955).

Entered Union & (rank): Feb. 19 or Mar. 1, 1803 (date disputed) (17).

Present constitution adopted: 1851.

Motto: *Imperium in imperio* (An empire within an empire) (unofficial).

State flower: Scarlet carnation (1904).

State bird: Cardinal (1933).

State song: None.

Nickname: Buckeye State.

Origin of name: From an Iroquoian word meaning "great river."

1940 population & (rank): 6,907,612 (4).

1950 population & (rank): 7,946,627 (5).

1951 estimated population: 8,063,000.

Area & (rank): 41,222 sq. mi. (34).

Geographic center: In Delaware Co., 25 mi. N of Columbus.

Number of counties: 88.

Largest cities: Cleveland (914,808); Cincinnati (503,998); Columbus (375,901); Toledo (303,616); Akron (274,605).

State forests: 20 (145,281 ac.).

State parks: 16 (22,074 ac.).

State general revenue (1950): \$662,862,301.

State general expenditure (1950): \$695,534,112.

With vast coal and oil fields on the one hand, with Great Lakes iron ore close by on the other, Ohio automatically developed into one of the nation's greatest industrial states. The vast and varied factory output

of its cities runs from wire, nails, nuts, bolts, paper, radios, cash registers, golf clubs, refrigerators to motors of all kinds and sizes. Cleveland is one of the world's largest handlers of iron ore. Toledo is the nation's largest shipper of coal. Akron makes most of the auto tires used in the U. S.

Ohio's thousands of factories almost overshadow its importance in two other basic industries—mining and agriculture. Its fertile soil produces soy beans, corn, wheat, grapes and tobacco. Dairying and greenhouse products are important. Mining is centered in coal, oil, sand, gravel and clay.

Ohio is called the "Mother of Presidents," because it has sent to the White House eight men, six of whom were elected from that state and two of whom were born in Ohio but elected from other states.

In 1749, Céleron, a French officer, reached the Ohio River from Canada and claimed the area for the French, disregarding the grants of the British Kings.

OKLAHOMA

Capital: Oklahoma City.

Governor: Johnston Murray (Dem., 1955).

Organized as territory: May 2, 1890.

Entered Union & (rank): Nov. 16, 1907 (46).

Present constitution adopted: 1907.

Motto: *Labor omnia vincit* (Labor conquers all things).

State flower: Mistletoe (1893).

State tree: Redbud (1937).

State bird: Scissor-tailed Flycatcher.

State colors: Green and white (1915).

State song: "Oklahoma (A Toast)" (1935).

Special state holidays: Opening of Oklahoma Terr., Apr. 22; Will Rogers' Birth, Nov. 4.

Nickname: Sooner State.

Origin of name: From two Choctaw Indian words meaning "red people."

1940 population & (rank): 2,336,434 (22).

1950 population & (rank): 2,233,351 (25).

1951 estimated population: 2,266,000.

Area & (rank): 69,919 sq. mi. (17).

Geographic center: In Oklahoma Co., 8 mi. N of Oklahoma City.

Number of counties: 77.

Largest cities: Oklahoma City (243,504); Tulsa (182,740); Muskogee (37,289); Enid (36,017); Lawton (34,757).

State forests: None.

State parks: 9 (50,160 ac. land).

State general revenue (1950): \$246,752,772.

State general expenditure (1950): \$235,953,358.

Oil has made Oklahoma a rich state and Tulsa one of the world's wealthiest cities per capita. The smelting of zinc, oil refining, meat packing and flour milling are its chief factory industries. Wheat, corn, oats, cotton, sorghums and potatoes are its agricultural crops of chief importance.

In 1834, Oklahoma was set aside as Indian Territory and remained so until noon, April 22, 1889, when it was opened up to homesteaders. On that one day, 50,000 people swarmed in and the term "sooners" was born to apply to those who had sneaked into the state sooner than the noon deadline. Today, Oklahoma has the biggest U. S. Indian population, 63,125 according to the

1940 census, many of whom are rich because of the oil discovered on their land. The state is one of the two in the nation which prohibits the sale of hard liquor.

Coronado entered Oklahoma in 1541 while searching for the mythical city of Quivira.

OREGON

Capital: Salem.

Governor: Douglas McKay (Rep., 1955).

Organized as territory: Aug. 13, 1848.

Entered Union & (rank): Feb. 14, 1859 (33).

Present constitution adopted: 1859.

Motto: The Union (unofficial).

State flower: Oregon grape (1899).

State tree: Douglas fir (1939).

State bird: Western meadow lark (1927).

State song: "Oregon, My Oregon" (1927).

Nickname: Beaver State.

Origin of name: Unknown. However, it is generally accepted that the name, first used by Jonathan Carver in 1778, was taken from the writings of Maj. Robert Rogers, an English army officer.

1940 population & (rank): 1,089,684 (34).

1950 population & (rank): 1,521,341 (32).

1951 estimated population: 1,558,000.

Area & (rank): 96,981 sq. mi. (9).

Geographic center: In Crook Co., 25 mi. E of S of Prineville.

Number of counties: 36.

Largest cities: Portland (373,628); Salem (43,140); Eugene (35,879); Medford (17,305); Corvallis (16,207).

State forests: 5 (687,218 ac.).

State parks: 149 (70,000 ac.).

State general revenue (1951): \$157,094,000.

State general expenditure (1951): \$167,763,000.

Oregon, with the greatest U. S. reserve of standing timber, lives on its lumber and agriculture. Its salmon fishing industry, centered at Astoria at the mouth of the Columbia River, is one of the world's largest. The state leads in growing peppermint, holly, cane berries and several seed crops and also raises hops, fruit, livestock, dairy products, nuts, wheat, hay, oats and potatoes. Mercury, chromite and antimony are mined.

Oregon's coast is lush and green with heavy rainfall. Factories produce lumber and food products, flour, textiles and machinery.

Bonneville Dam lies between Oregon and Washington and helps make the state a great source of electric power. Oregon was the first of the far-Western states to be settled without the help of a major gold rush.

The first white men to see Oregon were Spaniards who sailed up the coast from Mexico in 1543. However, it is believed that the first white men to enter Oregon were from the ship of Capt. Robert Gray in 1783.

PENNSYLVANIA

Capital: Harrisburg.

Governor: John S. Pine (Rep., 1955).

Entered Union & (rank): Dec. 12, 1787 (2).

Present constitution adopted: 1874.

Motto: Virtue, liberty and independence.

State flower: Mountain laurel (1933).

State tree: Hemlock (1931).

State bird: Ruffed grouse (1931).

State colors: Blue and gold.

State song: None.

Nickname: Keystone State.

Origin of name: In honor of Adm. Sir William Penn, father of William Penn. It means "Penn's Woodland."

1940 population & (rank): 9,900,180 (2).

1950 population & (rank): 10,498,012 (3).

1951 estimated population: 10,559,000.

Area & (rank): 45,333 sq. mi. (32).

Geographic center: In Center Co., 2 1/2 mi. SW of Bellefonte.

Number of counties: 66.

Largest cities: Philadelphia (2,071,605); Pittsburgh (676,806); Erie (130,803); Scranton (125,536); Reading (109,320).

State forests: 23 (1,798,883 ac.).

State parks: 109 (103,987 ac.).

State general fund receipts (1950-51): \$445,243,851.94.

State general fund expenditures (1950-51): \$451,713,298.06.*

* Excess of expenditures over receipts was taken from \$17,000,000 surplus of May 31, 1950.

From the steel mills of Pittsburgh through the mid-state coal mines and oil wells to the shipyards and factories of Philadelphia, Pennsylvania bristles with heavy industry. Iron and steel are the state's trademarks. Today about half of U. S. iron and steel is made in the Pittsburgh area. Electrical machinery, textiles, boilers, engines, knit goods, locomotives, wire, trucks, buses, silk products, blast furnaces and other heavy products are made in the countless factories of this state. Philadelphia is the second busiest port in the U. S. and was the third largest city in population in 1950. Pennsylvania contains virtually all the U. S. anthracite (hard coal) deposits. As a farmer the state stands high in buckwheat, tobacco, apples, potatoes, corn, wheat, barley, hay and peaches.

Pennsylvania is rich in historical lore. Philadelphia was the seat of the federal government almost continuously from 1776 until 1800, and there the Declaration of Independence was signed and the Constitution drawn up. Valley Forge, of the Revolution, and Gettysburg, the turning-point of the Civil War, are both in Pennsylvania. The Liberty Bell stands in Independence Square in Philadelphia.

Henry Hudson sailed into Delaware Bay in 1609, following his trip up the Hudson River, and gave the Dutch first claim to the state. In 1681, William Penn, the Quaker, founded its first colony.

RHODE ISLAND

Capital: Providence.

Governor: Dennis J. Roberts (Dem., 1955).

Entered Union & (rank): May 29, 1790 (13).

Present constitution adopted: 1843.

Motto: Hope.

State flower: Violet (unofficial).

State tree: Maple (unofficial).

State bird: Bobwhite (unofficial).

State colors: Blue, white and gold (in state flag).

Song: "Rhode Island" (1946).

Special legal holiday: Victory Day, Aug. 14.

Nickname: Little Rhody.

Origin of name: From the Greek island of Rhodes.

1940 population & (rank): 731,346 (36).

1950 population & (rank): 791,896 (36).

1951 estimated population: 793,000.

Area & (rank): 1,214 sq. mi. (48).

Geographic center: In Kent Co., 2.8 mi. S. by W. of Crompton.

Number of counties: 5.

Largest cities: Providence (248,674); Pawtucket (81,436); Cranston (55,060); Woonsocket (50,211); Warwick (43,028).

State forests: 10 (15,600 ac.).

State parks: 14 (5,700 ac.).

State general revenue (1951): \$53,591,683.62.

State general expenditure (1951): \$32,845,965.91.

Little Rhode Island (it would fit into Texas 220 times), with the greatest density of population barring the District of Columbia, boasts the highest proportion of industrial workers of all the states, and the bulk of its products comes from the textile mills of Pawtucket, Providence and Woonsocket.

Providence is also one of the largest U. S. jewelry centers, and is important in the production of machinery and metal products.

With more than eight-tenths of the population living in urban areas, adjacent parts of the state are interested in dairying and truck farming, in spite of the predominance of boulder clay soil. Potatoes, corn, apples, oats and hay lead the crop list. Two-thirds of the state is forested.

Newport is the site of the Naval War College and was long a show place for the luxurious summer homes built by some of New York's wealthiest people. The U. S. Naval Air Station is at Quonset in the town of North Kingstown.

Roger Williams founded Providence, and subsequently Rhode Island, in 1636 after he had been banished from Massachusetts for nonconformance to religious doctrine. William Blackstone, a fugitive from Massachusetts, is reputed to have settled in what is now Cumberland, before this date.

SOUTH CAROLINA

Capital: Columbia.

Governor: James F. Byrnes (Dem., 1955).

Entered Union & (rank): May 23, 1788 (8).

Succeeded from Union: Dec. 20, 1860.

Re-entered Union: July 13, 1868.

Present constitution adopted: 1895.

Mottos: *Animus optibusque parati* (Prepared in minds and resources) and *Dum spiro spero* (While I breathe, I hope).

State flower: Carolina yellow jessamine (1924).

State tree: Palmetto tree (1939).

State bird: Carolina wren (1948).

State song: "Carolina" (1911).

Special legal holidays: Lee's Birthday, Jan. 19; Confederate Memorial Day, May 10; Jefferson Davis' Birthday, June 3; Thursday of State Fair Week (in October, where fair is held).

Nickname: Palmetto State.

Origin of name: Same as for North Carolina.

1940 population & (rank): 1,899,804 (26).

1950 population & (rank): 2,117,027 (27).

1951 estimated population: 2,125,000.

Area & (rank): 31,055 sq. mi. (39).

Geographic center: In Richland Co., 13 mi. SE of Columbia.

Number of counties: 46.

Largest cities: Columbia (86,914); Charleston (70,174); Greenville (58,161); Spartanburg (36,795); Rock Hill (24,502).

State forests: 4 (123,000 ac.).

State parks: 20 (45,000 ac.).

State total revenue (1950-51): \$187,200,408.

State general expenditure (1950-51): \$179,400,640.

Once primarily agricultural, South Carolina has built so many big cotton textile mills that today the state's factories double the output of its farms in cash value. Agriculture has not, however, been completely replaced and today its chief crops are cotton, tobacco, peaches, corn, hay, oats, sweet potatoes and peanuts which are enhanced by the recent development of modern soil-conservation methods. Charleston, the largest city and busiest seaport, makes asbestos, wood, pulp and steel products.

Civil War hostilities were started in this state at Charleston, when, on April 12, 1861, South Carolina men bombarded and captured Fort Sumter. In Charleston harbor the first submarine was used in warfare.

Vasquez de Ayllon, who came from Santo Domingo with about 500 settlers in 1526, made the first attempt to colonize this state but the expedition was later wiped out by Indians. In succeeding years, Spanish attempts were successful.

SOUTH DAKOTA

Capital: Pierre.

Governor: Sigurd Anderson (Rep., 1955).

Organized as territory: Mar. 2, 1861.

Entered Union & (rank): Nov. 2, 1889 (40).

Present constitution adopted: 1889.

Motto: Under God the people rule.

State flower: American pasqueflower (1903).

State tree: Black Hills spruce (1947).

State bird: Ring-necked pheasant (1943).

State animal: Coyote (1949).

State colors: Blue and gold (in state flag).

State song: "Hail! South Dakota" (1943).

Nicknames: Sunshine State; Coyote State.

Origin of name: Same as for North Dakota.

1940 population & (rank): 642,961 (38).

1950 population & (rank): 652,740 (40).

1951 estimated population: 647,000.

Area & (rank): 77,047 sq. mi. (15).

Geographic center: In Hughes Co., 8 mi. NE of Pierre.

Number of counties: 68.

Largest cities: Sioux Falls (52,696); Rapid City (25,310); Aberdeen (21,051); Huron (12,783); Watertown (12,699).

State forests: 4 (84,000 ac.).

State parks: 38 (132,000 ac.).

State general revenue (1952): \$73,503,775.71.

State general expenditure (1952): \$72,802,615.58.

Seventy-five per cent of the population of South Dakota is actively interested in agriculture. Its leading crops are rye, barley, oats, corn, wheat. Cattle raising and dairying are its stronger industries. The richest U. S. gold mine, the Homestake, is at Lead.

The Black Hills, a great tourist attraction, are the highest mountains east of the

Rockies. Mt. Rushmore, in this group, is celebrated for the likenesses of Washington, Jefferson, Lincoln and Theodore Roosevelt, which were carved in stone by the late Gutzon Borglum. The Badlands offer very scenic masses of bare rock and clay unrelieved by any vegetation. It was in this state that the Sioux Indians, angered at the influx of the white men who were searching for gold, started the hostilities which ended in Custer's Massacre, on June 25, 1876, in Montana. South Dakota has the smallest county in the nation, Armstrong County, which had, in 1940, a population of forty-two and in the 1948 election, a recorded vote of seven (six for Truman).

The French trader, Verendrye, entered this state in 1743, when he came down from Canada looking for a western ocean.

TENNESSEE

Capital: Nashville.

Governor: Frank G. Clement (Dem., 1955).

Entered Union & (rank): June 1, 1796 (16).

Seceded from Union: June 24, 1861.

Re-entered Union: July 24, 1866.

Present constitution adopted: 1870.

Motto: Agriculture, commerce.

State flower: Iris (1933).

State tree: Tulip poplar (1947).

State bird: Mockingbird (1933).

Special legal holidays: Robert E. Lee's Birthday, Jan. 19; Andrew Jackson's Birthday, Mar. 15; Confederate Decoration Day and Jefferson Davis' Birthday, June 3; Nathan Bedford Forrest's Birthday, July 13; Primary Election Day (first Thursday in August in even years).

Songs: "My Homeland, Tennessee" (1925) and "When It's Iris Time in Tennessee" (1935).

Nickname: Volunteer State.

Origin of name: From the name of the ancient capital of the Cherokee tribe.

1940 population & (rank): 2,915,841 (15).

1950 population & (rank): 3,291,718 (16).

1951 estimated population: 3,318,000.

Area & (rank): 42,246 sq. mi. (33).

Geographic center: In Rutherford Co., 5 mi. NE of Murfreesboro.

Number of counties: 95.

Largest cities: Memphis (396,000); Nashville (174,307); Chattanooga (131,041); Knoxville (124,769); Jackson (30,207).

State forests: 9 (71,272 ac.).

State parks: 15 (126,625 ac.).

State general revenue (1951-52): \$243,600,000.

State general expenditure (1950): \$242,600,000.

Tennessee won world prominence in 1945, for the atom bomb was made possible by the Clinton Engineer Works at Oak Ridge.

The state is now predominately industrial, with production including chemicals, foods, textiles, virgin aluminum, books, shoes, paper, machinery and electrical equipment. Mineral products include phosphates, zinc, high-grade pottery clay, coal and marble. Tennessee's agricultural production includes livestock, cotton, tobacco, dairy products, poultry, eggs and corn.

Tennessee is the home of TVA which operates 27 dams and distributes power from 8

others. Benefits of flood control, navigation and electrical power reach into 6 other states (Kentucky, Alabama, North Carolina, Georgia, Virginia, and Mississippi). The Tennessee River, already the most completely used major river in the world, is insufficient to supply energy needs, and the power system is being doubled by use of steam generating plants.

The Battle of Shiloh was fought in this state during the Civil War, and the fighting on Lookout Mountain was called "The battle above the clouds."

Hernando de Soto entered the state in 1541.

TEXAS

Capital: Austin.

Governor: Allan Shivers (Dem., 1955).

Entered Union & (rank): Dec. 29, 1845 (28).

Seceded from Union: Mar. 2, 1861.

Re-entered Union: Mar. 30, 1870.

Present constitution adopted: 1876.

Motto: Friendship.

State flower: Bluebonnet (1901).

State tree: Pecan (1919).

State bird: Mockingbird (1927).

State song: "Texas, Our Texas" (1930).

Special legal holidays: Lee's Birthday, Jan. 19;

Texas Independence Day, Mar. 2; San

Jacinto Day, Apr. 21; Jefferson Davis Day,

June 3.

Nickname: Lone Star State.

Origin of name: From an Indian word meaning "friends."

1940 population & (rank): 6,414,824 (6).

1950 population & (rank): 7,711,194 (6).

1951 estimated population: 7,991,000.

Area & (rank): 267,339 sq. mi. (1).

Geographic center: In McCulloch Co., 15 mi. NE of Brady.

Number of counties: 254.

Largest cities: Houston (596,163); Dallas (434,462); San Antonio (408,442); Fort Worth (278,778); Austin (132,459).

State forests: 5 (6,510 ac.).

State parks: 46 (57,571 ac.).

State general revenue (1950-51): \$620,734,085.06.

State general expenditure (1950-51): \$568,153,-443.52.

Big, sprawling, vigorous Texas, comprising one-twelfth of the entire area of the United States, is the richest political subdivision in the world with the possible exception of the Russian Ukraine, and is the only state that may, by Congressional statute, divide into five parts if it so desires. There is very little possibility of this ever being done because Texas and Texans live by its bigness. Texas is a natural leader in oil, natural gas, cotton, cattle, helium, sulfur, sheep, wool, onions and turkeys.

The distance from El Paso to Beaumont is a greater distance than from New York to Chicago. Texas supports possibly the most ardent local enthusiasts in the nation, who are always quick to boast of her richness, beautiful girls, size.

Amarillo has the only U. S. helium plant; over the Neches River, at Port Arthur, is the most elevated highway bridge in the world. In Pecos County is the deepest hole in the world—an oil well of 15,279 feet.

Cabeza de Vaca explored the state in 1528.

Since 1685, it has been under the jurisdiction of 6 separate governments: those of France, Spain, Mexico, the Republic of Texas, the Confederacy and the United States.

UTAH

Capital: Salt Lake City.
Governor: J. Bracken Lee (Rep., 1955).
Organized as territory: Sept. 9, 1850.
Entered Union & (rank): Jan. 4, 1896 (45).
Present constitution adopted: 1896.
Motto: Industry.
State flower: Sego lily (1911).
State tree: Blue spruce (1933).
State bird: Seagull (unofficial).
State emblem: Beehive.
State song: "Utah, We Love Thee."
Special legal holidays: Arbor Day (some day between March 1 and April 15); Pioneer Day, July 24.
Nickname: Beehive State.
Origin of name: From the Ute tribe, meaning "people of the mountains."
1940 population & (rank): 550,310 (41).
1950 population & (rank): 688,862 (38).
1951 estimated population: 709,000.
Area & (rank): 84,916 sq. mi. (10).
Geographic center: In Sanpete Co., 3 mi. N of Manti.
Number of counties: 29.
Largest cities: Salt Lake City (182,121); Ogden (57,112); Provo (28,937); Logan (16,832); Murray (9,006).
State forests: None.
State parks: 3 (10 ac.).
State general revenue (1951): \$89,679,978.82.
State general expenditure (1951): \$86,782,876.45.

Utah, rich in natural resources, has long been recognized for its copper, gold and silver. In addition, the state produces all the elements necessary for the manufacture of steel: iron, lime, dolomite, fluorspar, manganese and coal for coking. Uranium, long considered a waste material in the mining of vanadium, has recently supplanted all other products in the state.

Utah's crops requiring extensive irrigation include sugar beets, potatoes, hay, onions and wheat. Various garden crops, such as beans, peas and tomatoes, and fruits, such as pears, peaches, apples and apricots, make up an ever-growing industry. Eggs and commercial poultry are also produced.

Brigham Young led the Mormons into the area in 1847. Six times in the next forty years, the area applied for statehood and was refused because polygamy was practiced. In 1896, when polygamy was abandoned by the Mormon Church, Utah was admitted into the union.

Great Salt Lake, lying in the north central area, has long been a world wonder. It has no known outlet, and its salt content is about six times that of the ocean.

Spanish explorers in 1540 were probably the first whites in the area.

VERMONT

Capital: Montpelier.
Governor: Lee E. Emerson (Rep., 1955).
Entered Union & (rank): Mar. 4, 1791 (14).
Present constitution adopted: 1793.

Motto: Vermont—freedom and unity.

State flower: Red clover (1894).
State tree: Sugar maple (1949).
State bird: Hermit thrush (1941).
State song: "Hail to Vermont" (1937).
Special legal holiday: Bennington Battle Day, Aug. 16.
Nickname: Green Mountain State.
Origin of name: From the French, meaning "green mountain."
1940 population & (rank): 359,231 (46).
1950 population & (rank): 377,747 (45).
1951 estimated population: 373,000.
Area & (rank): 9,609 sq. mi. (42).
Geographic center: In Washington Co., 3 mi. E of Roxbury.
Number of counties: 14.
Largest cities: Burlington (33,155); Rutland (17,659); Barre (10,922); Montpelier (8,599); St. Albans (8,552).
State forests: 24 (68,936 ac.).
State parks: 21 (6,226 ac.).
State general revenue (1950): \$30,146,000.
State general expenditure (1950): \$31,537,000.

Vermont, the only New England state without a seacoast (and the last to be settled because of this), is a U. S. leader in the production of maple syrup and asbestos and sometimes the leader in marble and granite. In ratio to population, it keeps more dairy cows than any other state. Vermont's soil is devoted to dairying, truck farming and fruit growing, its rugged area precluding extensive farming. This same quality, however, along with a bracing dry climate, makes the state popular as a summer resort and as a center of winter sports. Two-thirds of the total land area of the state is classified as forest land.

From 1777 to 1791, Vermont was an independent republic with all national perquisites and then was the first state after the original thirteen to join the Union. It was also the first state to forbid slavery. Vermont has been Republican since 1856; only Georgia on the Democratic side ties that record for consistency.

Samuel de Champlain, in 1609, was the first white man to see the state.

VIRGINIA

Capital: Richmond.
Governor: John S. Battle (Dem., 1954).
Entered Union & (rank): June 25, 1788 (10).
Succeeded from Union: Apr. 17, 1861.
Re-entered Union: Jan. 27, 1870.
Present constitution adopted: 1902.
Motto: *Sic semper tyrannis* (Thus always to tyrants).
State flower: American dogwood (1918).
State bird: Cardinal.
State song: "Carry Me Back to Old Virginny" (1940).
Special legal holidays: Lee-Jackson Day, Jan. 19; Thomas Jefferson Day, Apr. 13; Confederate Memorial Day, May 30; Jefferson Davis Day, June 3.
Nicknames: The Old Dominion; Cavalier State.
Origin of name: In honor of Elizabeth, "Virgin Queen" of England.
1940 population & (rank): 2,877,773 (19).
1950 population & (rank): 3,318,680 (15).

1951 estimated population: 3,385,000.
 Area & (rank): 40,815 sq. mi. (35).
 Geographic center: In Appomattox Co., 11 mi. S of E of Amherst.
 Number of counties: 100, plus 24 independent cities.
 Largest cities: Richmond (230,310); Norfolk (213,513); Roanoke (91,921); Portsmouth (80,039); Alexandria (61,787).
 State forests: 6 (7,010 ac.).
 State parks: 9 (19,026 ac.).
 State general revenue (1950): \$313,815,884.
 State general expenditure (1950): \$317,292,170.

Virginia is bound up with American history. Jamestown, founded in 1607, was the first permanent English settlement in North America; slavery was introduced in the state in 1619; the Revolutionary and Civil Wars were both ended in this state, and Virginia supplied seven of the first twelve Presidents.

Agriculture and tobacco are Virginia's mainstays. Apples, cotton, wheat, oats, potatoes, barley and sweet potatoes are her crops. Richmond makes more cigarettes than any other city in the world. Virginia's hams are world famous. There is a substantial livestock industry in southwest Virginia. Industry, particularly in the textile lines, is developing rapidly.

Norfolk, together with Portsmouth and Newport News, makes up the busy Port of Hampton Roads.

Monticello, home of Jefferson; Mount Vernon, home of Washington; and Arlington National Cemetery bring visitors to this Old Dominion state annually.

The explorations of Sir Walter Raleigh, in 1584, were responsible for the birth of this state, which at that time included the entire Atlantic coast north of the Spanish settlements.

WASHINGTON

Capital: Olympia.
 Governor: Arthur B. Langlie (Rep., 1957).
 Organized as territory: Mar. 2, 1853.
 Entered Union & (rank): Nov. 11, 1889 (42).
 Present constitution adopted: 1889.
 Motto: *Al-ki* (Indian word meaning Bye and Bye).
 State flower: Rhododendron (1949).
 State tree: Hemlock (1947).
 State bird: Goldfinch (1951).
 State colors: Green and gold (1925).
 State song: "Washington's Song" (1909).
 Nicknames: Evergreen State; Chinook State.
 Origin of name: In honor of Geo. Washington.
 1940 population & (rank): 1,736,191 (30).
 1950 population & (rank): 2,378,963 (23).
 1951 estimated population: 2,425,000.
 Area & (rank): 68,192 sq. mi. (19).
 Geographic center: In Chelan Co., 10 mi. S of W of Wenatchee.
 Number of counties: 39.
 Largest cities: Seattle (467,591); Spokane (161,721); Tacoma (143,673); Yakima (38,486); Bellingham (34,112).
 State forests: 2 (290,000 ac.).
 State parks: 75 (54,594 ac.).
 State general revenue funds (1951-52): \$300,-631,450.

State general expenditure (1951-52): \$291,862,-964.

Washington annually leads the nation in lumber production. Its rugged surface is rich in stands of Douglas fir, yellow and white pine, spruce, larch and cedar. The state's other first is apples. Food and lumber products and a wide variety of goods flow from Washington factories.

Grand Coulee Dam, built on the Columbia River for power and irrigation, contains the world's most powerful hydroelectric plant, with a peaking capability of producing a continuous output of 2,340,000 kw. About 90% of the electric energy consumed in the state is generated by water-power plants. Low-cost power makes Washington the owner of more electric lights per capita than any other state in the nation.

The Hanford Engineer Works, north of Pasco, has been set up as the world's first full-scale plant for atom bombs.

Bruno Heceta landed in 1775.

WEST VIRGINIA

Capital: Charleston.
 Governor: William C. Marland (Dem., 1957).
 Entered Union & (rank): June 20, 1863 (35).
 Present constitution adopted: 1872.
 Motto: *Montani semper liberi* (Mountaineers always free).
 State flower: Rhododendron (1903).
 State tree: Sugar maple (1949).
 State bird: Cardinal (1949).
 State colors: Blue and gold (unofficial).
 State songs: "West Virginia, My Home Sweet Home" (approved 1947 as one of songs of state); "West Virginia Hills" (by custom).
 Special legal holiday: West Virginia Day, June 20.

Nickname: Mountain State.
 Origin of name: Same as for Virginia.
 1940 population & (rank): 1,901,974 (25).
 1950 population & (rank): 2,005,552 (29).
 1951 estimated population: 1,995,000.
 Area & (rank): 24,181 sq. mi. (40).
 Geographic center: In Braxton Co., 4 mi. E of Sutton.
 Number of counties: 55.
 Largest cities: Huntington (86,353); Charleston (73,501); Wheeling (58,891); Clarksburg (32,014); Parkersburg (29,684).
 State forests: 9 (86,418 ac.).
 State parks: 16 (39,438 ac.).
 State general revenue (1951): \$88,132,142.60.
 State general expenditure (1951): \$88,994,278.47.*

* Includes capital expenditures from surplus.

Mountainous West Virginia is the coal mining leader of the nation. Geologists believe that if all other U. S. coal mines shut down, West Virginia alone could supply the country for 250 years with its deposits of bituminous (soft) coal. The state also ranks high in natural gas, oil, quarry products and hardwood lumber. Cattle is the main product. Leading crops include wheat, corn, oats, hay, tobacco and fruit.

West Virginia was created when its residents refused to secede from the Union and severed itself from Virginia during the Civil War era. Like many mountain states, West Virginia has an equable climate without ex-

tremes. White Sulphur Springs, in Greenbrier County, is a famous health resort. Mountain streams give the state one of the highest U. S. water-power potentials.

In 1671, Captain Thomas Batts and a party from eastern Virginia probably were the first whites to see the area.

WISCONSIN

Capital: Madison.
Governor: Walter J. Kohler (Rep., 1955).
Organized as territory: Apr. 20, 1836.
Entered Union & (rank): May 29, 1848 (30).
Present constitution adopted: 1848.
Motto: Forward.
State flower: Violet.
State tree: Sugar maple.
State bird: Robin.
State animal: Badger.
State song: "On Wisconsin" (unofficial).
Nickname: Badger State.
Origin of name: French corruption of an Indian word meaning "gathering of waters."
1940 population & (rank): 3,137,587 (13).
1950 population & (rank): 3,434,575 (14).
1951 estimated population: 3,475,000.
Area & (rank): 56,154 sq. mi. (25).
Geographic center: In Wood Co., 9 mi. SE of Marshfield.
Number of counties: 71.
Largest cities: Milwaukee (637,392); Madison (96,056); Racine (71,193); Kenosha (54,368); Green Bay (52,735).
State forests: 7 (267,657 ac.).
State parks: 32 (18,044 ac.).
State general revenue (1951): \$336,043,165.
State general expenditure (1951): \$303,390,322.

Wisconsin is the first dairying state in the nation and leads in such items as number of dairy cattle, and production of cheese and butter and milk products. Until some forty years ago, when its forests were exhausted, Wisconsin was a leader in lumbering. It has since turned its attention to agriculture and manufacturing. The making of paper, autos, beer, machinery and furniture are its main factory interests. Cranberries, hemp, oats, rye and tobacco are its secondary agricultural pursuits.

Wisconsin pioneered in social legislation, providing pensions for the blind (1907), aid to dependent children (1913) and old-age assistance (1925). In 1932, it was the first state to enact an unemployment compensation law. In labor legislation, the state has also pioneered in important laws, among them the first workmen's compensation law actually to take effect.

Jean Nicolet, French explorer, seeking a northwest passage in 1634, was the first white man to see the state.

WYOMING

Capital: Cheyenne.
Governor: Frank A. Barrett (Rep., 1955).
Organized as territory: July 25, 1868.
Entered Union & (rank): July 10, 1890 (44).
Present constitution adopted: 1890.
Motto: *Cedant arma togae* (Let arms yield to the gown).
State flower: Indian paintbrush (1917).
State tree: Cottonwood (1947).
State bird: Meadow lark (1927).
State insignia: Bucking horse (unofficial).
State song: "Wyoming State Song" (unofficial).
Special legal holiday: Arbor Day (by governor's designation).
Nickname: Equality State.
Origin of name: From the Indian, meaning "mountains and valleys alternating"; named after the Wyoming Valley in Pa.
1940 population & (rank): 250,742 (48).
1950 population & (rank): 290,529 (47).
1951 estimated population: 295,000.
Area & (rank): 97,914 sq. mi. (8).
Geographic center: In Fremont Co., 58 mi. N of E of Lander.
Number of counties: 23, plus Yellowstone National Park.
Largest cities: Cheyenne (31,935); Casper (23,673); Laramie (15,581); Sheridan (11,500); Rock Springs (10,857).
State forests: None.
State parks: 2 (1,060 ac.).
State general revenue (1949-50): \$42,246,000.
State general expenditure (1949-50): \$41,618,000.

Wealthy in wool, cattle, oil and coal, Wyoming was first in U. S. history to insure woman's place in politics. In 1869, it gave women the vote and Mrs. Nellie Tayloe Ross, who held office in 1925-27, was the first U. S. woman governor.

Second in mean elevation to Colorado, Wyoming has many lures for the tourist trade, notably Yellowstone National Park. Cheyenne is famous for its annual "Frontier Days" celebration, which brings in visitors from everywhere. One of the world's largest subbituminous coal fields lies near Gillette. Big game hunting is good in many parts of the state.

Trappers in 1812 were probably the first white men to settle this state, although John Colter, a member of the Lewis and Clark expedition, reached the northwest corner in 1807.

Self-governing U. S. Territories

ALASKA

Capital: Juneau.
Governor: Ernest Gruening (1953).
Organized as territory: 1912.
Territorial flower: Forget-me-not.
Territorial bird: Raven (unofficial).
Territorial song: "Alaska, My Alaska" (unofficial).

Origin of name: Corruption of native word meaning "great country."
1939 population: 72,524.
1950 population: 128,643.
1939-50 population change: +77.4%.
Area: 586,400 sq. mi. (incl. Aleutians).
Geographic center (including islands): 95 mi. south of Fort Gibbon.
Largest cities: Anchorage (11,254), Juneau

(5,956), Fairbanks (5,771), Ketchikan (5,305), Seward (2,114).

Alaska, the biggest and wildest of U. S. possessions (including the Aleutian Islands) was called "Seward's Folly" in 1867, when that Secretary of State arranged for its purchase from Russia for \$7,200,000. Since then Alaska has returned \$3,200,000,000 worth of products to the U. S.

Canned salmon is Alaska's principal product. It mines gold, supplies all domestically mined U. S. tin and also turns out copper, platinum, coal, oil, gypsum, limestone and marble. The Pribilof Islands, in the Bering Sea, are world famous as the breeding ground of the Alaska fur seal, which is under careful government control. Beaver, muskrat, otter, mink and other furs also abound.

Mt. McKinley, in the south central part, is 20,300 feet high, the tallest peak in North America. With its wild interior, still partly unexplored, this territory is a hunter's paradise. With only one person for every five square miles, Alaska is by far the most thinly settled of U. S. lands. Sitka was its capital until 1906.

Alaska has magnificent glaciers and active volcanoes. Winter temperatures in the interior have been known to register 60° below zero. However, summer temperatures in the same area have been recorded at 99° above zero; and large parts of the territory, especially in the southeast, enjoy mild climate in both summer and winter.

Alaska's Governor is appointed by the President to a 4-year term, and there is a locally elected 2-house legislature. The territory's delegate to the U. S. House of Representatives has floor privileges but no vote. Legislation is pending in Congress for the admission of Alaska as a state.

The Aleutians include the following island groups (and major islands): Fox Islands (Unimak, Akutan, Unalaska, Umnak); Islands of the Four Mountains (Chuginadak, Kagamil, Carlisle, Herbert); Andreanof Islands (Atka, Tanaga, Adak, Kanaga); Rat Islands (Kiska, Amchitka, Semisopochnoi, Rat); Near Islands (Agattu, Attu). In June 1942, the Japanese occupied Attu and Kiska. However, Attu was retaken by the U. S. in May 1943; Kiska was evacuated by the Japanese in Aug. 1943 after extensive shelling and bombing of the island.

Vitus Bering, a Dane working for the Russians, and Alexei Chirikov discovered Alaska and the Aleutians in 1741. The first

permanent settlement was established in 1783 on Kodiak Island.

HAWAII

Capital: Honolulu (on Oahu).

Governor: Oren E. Long (1955).

Organized as territory: 1900.

Motto: *Ua Mau Ke Ea O Ka Aina I Ka Pono* (The growth of the land is perpetuated by righteousness).

Territorial flower: Hibiscus.

Territorial song: "Hawaii Ponoi" (unofficial).

Nickname: Paradise of the Pacific.

1940 population: 423,300.

1950 population: 499,794.

1940-50 population change: +18.1%.

Area: 6,454 sq. mi. (incl. outlying islands).

Counties: 4.

Largest cities: Honolulu (248,034), Hilo (27,198), Wahiawa (8,369), Kailua-Lanikai (7,740), Wailuku (7,424).

Hawaii, 2,100 miles west-southwest of San Francisco, is a 390-mile chain of islets and 8 main islands—Hawaii, Kahoolawe, Maui, Lanai, Molokai, Oahu, Kauai, and Nihoa. Kure (Ocean) Island, an uninhabited islet in the Leeward Islands, and Palmyra, in the Line Islands, are administratively part of Hawaii.

Hawaii's temperature is mild and the soil is fertile for tropical fruits and vegetables. It grows 90 per cent of the world's pineapple. Cane sugar is its chief product and it also grows coffee, rice, cotton, bananas, nuts and potatoes. Some livestock is raised. In normal times, the tourist business is Hawaii's third biggest source of income. At least 86 per cent of the islands' population, although racially heterogeneous, is native.

Hawaii's highest peak, Mauna Kea, rises to 13,784 feet and is, in a sense, the world's highest mountain since it springs from an ocean floor 18,000 feet below sea level. Kilauea, on Hawaii, is one of the world's most active volcanoes. The islands have no snakes and their only native mammal is a small bat of which there are many species.

Hawaii's Governor is appointed by the President to a 4-year term, and there is a locally elected 2-house legislature. The territory's delegate to the U. S. House of Representatives has floor privileges but no vote. Legislation is pending in Congress for the admission of Hawaii as a state.

Hawaii was discovered in 1778 by Captain James Cook, an Englishman, who named it the Sandwich Islands. It was ruled by native monarchs until 1898 when it ceded itself to the U. S.

Non Self-governing U. S. Territories

AMERICAN SAMOA

Capital: Pago Pago (on Tutuila).

Governor: John C. Elliott.

1940 population: 12,908.

1950 population: 18,937.

1940-50 population change: +46.7%.

Area: 76 sq. mi.

American Samoa, a group of seven main volcanic or coral islands in the South Pacific, comprises the island of Tutuila and all the other islands of the Samoan Group east of longitude 171° west of Greenwich, including Aunu'u, Manua (Tau, Olosega and Ofu) and Swains Islands and Rose Atoll.

On Dec. 2, 1899, in a conference held in Washington, the U. S., Germany and Great Britain decided on the division of the Samoan Islands that held until World War I, after which New Zealand took possession of the German-mandated islands. In the 1900s, the high chiefs of the American group ceded possession to the U. S., and Congress accepted jurisdiction about twenty-five years later. On July 1, 1951, administration was transferred from the Navy to the Department of the Interior.

The principal products are copra and mats woven from local grass or leaves known as auala.

BAKER, HOWLAND AND JARVIS

These Pacific islands were not to play a role in the extraterritorial plans of the U. S. until May 13, 1936, when the U. S. perfected its claim. President F. D. Roosevelt, at that time, placed them under the control of and jurisdiction by the Secretary of the Interior for administration purposes.

Baker Island is a rectangular atoll with an area of approximately one square mile and an elevation of twenty feet. It is about 1,880 miles from Hawaii.

Howland Island, a few miles to the north, is approximately one and a half miles long and half a mile wide and rises to an elevation of eighteen feet. Both these islands are near the crossing of the Equator and the International Date line.

Jarvis Island is several hundred miles to the east and is approximately two miles long by one and a half miles wide. It is slightly south of the Equator.

CANAL ZONE

Headquarters: Balboa Heights, C. Z.; 24 State St., New York City.

Governor-President: Brig. Gen. John S. Seybold.

1940 population: 51,827.

1950 population: 52,822.

1940-50 population change: +1.9%.

Area: 553 sq. mi.

The Canal Zone is a 50-mile strip between the Atlantic and Pacific Oceans which was granted to the U. S. by the Republic of Panamá by treaty in 1903 (ratified Feb. 26, 1904). It extends roughly 5 miles on either side of the center line of the Panama Canal, forming what might be termed a protective belt for the vital waterway over which the U. S. exercises complete sovereignty.

The 1903 treaty provided for the payment of \$10,000,000 by the U. S. to Panamá upon ratification of the treaty and \$250,000 in gold annually, beginning 10 years after ratification. The annual payments were increased to \$430,000 after the U. S. went off the gold standard.

The history of the Canal goes back to 1534, when King Charles V of Spain ordered a survey made. Construction of the waterway was formally inaugurated in Jan. 1880 by the French Canal Co. under a concession granted by New Granada (Colombia) 2 years earlier. The canal rights and properties of the second French Canal Co. were bought by the

U. S. for \$40,000,000, the transfer being made May 4, 1904, in Panamá City. The construction of the Canal was completed 10 years later, and the first commercial transit was made Aug. 15, 1914, by the S. S. *Ancon*, a government-owned vessel.

The Canal is 40.27 miles from shore line to shore line and 50.72 miles from deep water in the Caribbean to deep water in the Pacific. The Panama Railroad, completed in 1855, is owned by the Panama Canal Co. It roughly parallels the Canal channel, running 47.64 miles from Colón to Panamá City.

The Panama Canal Locks, which provide a water bridge between the two oceans, are Gatún Locks on the Atlantic side and Pedro Miguel and Miraflores Locks on the Pacific side. They lift or lower ships 85 feet between sea level and Gatún Lake level in 3 steps on each side of the Isthmus. Each of the twin chambers in every flight of locks has a usable length of 1,000 feet, and width of 110 feet, and is about 70 feet deep.

The Canal Zone is, in effect, a government reservation, and no private enterprise is permitted except that which directly relates to the operation of the waterway. The area is administered by a Governor who is appointed by the President of the U. S. As Governor, he is responsible for civil government and public health functions under the Canal Zone Government. The Governor is also ex officio President of the Panama Canal Co. As President, he is responsible for all operations of the Canal, including subsidiary activities.

All ships afloat, with the exception of the commercial liners of the Queen Mary class and U. S. Aircraft carriers of the Roosevelt class, can transit the Panama Canal. Prior to the beginning of World War II, work was started on the construction of a third set of locks, which were to be much larger than existing installations. This work was suspended soon after the war started and has not been resumed.

CANTON AND ENDERBURY

Canton and Enderbury islands, the largest of the Phoenix group, are jointly owned and supervised by the U. S. and Great Britain after an agreement signed on Apr. 6, 1939. Canton is triangular in shape and the largest of the eight islands of this group. It lies approximately 1,600 miles southwest of Hawaii in the Pacific and was discovered at the turn of the eighteenth century by U. S. whalers. It was surveyed by Commander R. W. Meade who named it after a whaler ship. It had, in 1940, a population of forty. Enderbury is rectangular in shape and is 2.7 miles long by one mile wide. It had, in 1940, a population of four and it lies about thirty-two miles southeast of Canton.

GUAM

Capital: Agaña.

Governor: Carlton Skinner.

1940 population: 22,290.

1950 population: 59,498.

1940-50 population change: +166.9%.

Area: 206 sq. mi.

Guam, the largest of the Mariana Islands,

is independent of the trusteeship assigned to the U. S. in 1947. It was acquired by the U. S. from Spain in 1898 (occupied 1899) and was placed under Navy Department administration.

In World War II, Guam was seized by the Japanese on Dec. 11, 1941; but on July 27, 1944, it was once more under the U. S.

On Aug. 1, 1950, President Truman signed a bill which granted U. S. citizenship to the people of Guam and which established limited self-government. The civilian governor operates under supervision of the Department of the Interior.

The chief produce of the island is copra and coconut oil. Grown for local consumption are bananas, pineapples, corn, pears, etc.

JOHNSTON ISLAND

This island was originally discovered by Captain Charles James Johnston of *H.M.S. Cornwallis* on Dec. 14, 1867. On July 27, 1858, it was claimed by Hawaii and became a possession of the U. S. The island is about 600 miles southwest of Hawaii and about one and a half miles long by half a mile wide.

KINGMAN REEF

This reef was discovered by Captain W. E. Kingman in Nov., 1853, and is the smallest land of U. S. sovereignty. It is 150 feet long by 120 feet wide at high tide. At low tide, two other islets of this atoll appear. It is approximately 1,000 miles south of Hawaii.

KURE (OCEAN) ISLAND. See HAWAII

MIDWAY

Midway, lying about 1,200 miles west-northwest of Hawaii, was discovered by Captain N. C. Brooks of the Hawaiian bark *Gambia* on July 5, 1859, in the name of the U. S. It was formally declared a U. S. possession in 1867, and in 1903 Theodore Roosevelt made it a naval reservation. Sand and Eastern Islands, with 850 acres and 328 acres respectively, are its largest individual islands. In 1935 it became a regular stopover for commercial transpacific flights. During the past war it was the scene of the first decisive defeat suffered by the Japanese. The total group comprises an area of twenty-eight square miles.

PALMYRA. See HAWAII

PUERTO RICO

Capital: San Juan.

Governor: Luis Muñoz Marín.

Song: "La Borinqueña."

1940 population: 1,869,255.

1950 population: 2,210,703.

1940-50 population change: +18.3%.

Area: 3,435 sq. mi.

Puerto Rico, ninety-five miles long and at the northeast head of the Caribbean Sea, is a big cane sugar and rum producer and one of the most densely populated sections in the world. Other crops are cigars, citrus fruits, pineapples, rope and coffee.

The island was seized by the U. S. in 1898 in the Spanish-American War. It is admin-

istered by a Governor, who, as a result of a bill signed by President Truman on Aug. 5, 1947, is elected by popular vote, and a locally-elected Congress. There is also a Resident Commissioner in Washington with a voice in the House of Representatives but no vote. On Jan. 4, 1951, Puerto Ricans voted for self-rule under a constitution.

On July 25, 1952, the Constitution of the Commonwealth of Puerto Rico was proclaimed by Gov. Luis Muñoz Marín. It had been overwhelmingly approved in the elections held Mar. 3, 1952.

The Commonwealth is now a wholly autonomous community in all matters regarding its local government, and is voluntarily associated with the U. S.

The island was formerly known as Porto Rico, but in 1932, Congress made the present spelling official.

Columbus discovered Puerto Rico and Ponce de León conquered it for Spain in 1509.

VIRGIN ISLANDS OF THE U. S.

Capital: Charlotte Amalie (on St. Thomas).

Governor: Morris F. de Castro.

1940 population: 24,889 (St. Croix, 12,902; St. Thomas, 11,265; St. John, 722).

1950 population: 26,665.

1940-50 population change: +7.1%.

Area: 133 sq. mi. (St. Croix, 82; St. Thomas, 32; St. John, 19).

The Virgin Islands, consisting of 9 main islands and some 75 islets, were discovered by Columbus in 1493. Since 1666, England has held 6 of the main islands; the other 3 (St. Croix, St. Thomas and St. John), as well as about 50 of the islets, were eventually acquired by Denmark, which named them the Danish West Indies. In 1917, these islands were purchased by the U. S. from Denmark for \$25 million.

Congress granted U. S. citizenship to Virgin Islanders in 1927; and, in 1931, administration was transferred from the Navy to the Department of the Interior. Universal suffrage was given in 1936 to all persons who could read and write the English language. The Governor is appointed by the President of the U. S.

About 70% of the population is Negro, and there is limited farming, fishing and cattle raising. Vegetables, citrus fruits and coconuts are raised, and the chief items of export are rum and bay rum.

WAKE ISLAND

Wake Island, about halfway between Midway and Guam, is actually the three islets of Wilkes, Peale and Wake. They were discovered by the British in 1796 and annexed by the U. S. in 1898. The entire area comprises four square miles. In 1938, Pan American Airways established a seaplane base and it has been used as a commercial base since then. On Dec. 8, 1941, it was attacked by the Japanese, who finally took possession on Dec. 23. It was surrendered by the Japanese on Sept. 4, 1945. On Oct. 15, 1950, it was the scene of a conference between President Truman and General MacArthur.

The island is uninhabited.

U. S. Trusteeships

The Mariana, Caroline and Marshall Islands were purchased by Germany from Spain in 1899. They were occupied by the Japanese in 1914; and, in 1919, they were mandated to Japan by the League of Nations. On Apr. 2, 1947, the 134th meeting of the U. N. Security Council adopted and set up the Strategic Trust Territory of the Pacific Islands and assigned the Marianas, Carolines and Marshalls to the U. S. The measure was approved by Congress on July 18, 1947. Administration was transferred from the Navy to the Department of the Interior on July 1, 1951. The High Commissioner is Elbert Thomas.

The entire group comprises more than 1,400 islands but the total land area is only 846 square miles, many of the islands being tiny coral reefs. The Chamorros and Kanakas are the main racial groups, the former being less numerous but more advanced in living habits.

MARIANA ISLANDS

The Mariana Islands, east of the Philippines and south of Japan, include the islands of Guam, Rota, Saipan, Tinian, Pagan, Guguan, Agrihan and Aguijan. Guam, the largest, is independent of the trusteeship, having been acquired by the U. S. from Spain in 1898. (For information on Guam, see page 49.)

The soil is suitable for the raising of sugar cane, and a large sugar industry has been built up.

CAROLINE ISLANDS

The Caroline Islands, east of the Philippines and south of the Marianas, include the Yap, Truk and Palau groups and the islands of Ponape and Kusaie. The Palaus are sometimes called the Western Carolines.

The islands are composed chiefly of volcanic rock, and their peaks rise 2,000 to 3,000 feet above sea level. Chief products of the islands are coconuts and copra.

MARSHALL ISLANDS

The Marshall Islands, east of the Carolines, are divided into two chains: the western or Ralik group, including the atolls Jaluit, Kwajalein, Wotho and Eniwetok; and the eastern or Ratak group, including the atolls Mili, Majuro, Maloelap, Wotje, Likiep and Bikini.

The islands are of the coral-reef type and rise only a few feet above sea level. The chief crop is coconuts; exports include copra, tortoise shell, mother-of-pearl, etc.

Bikini and Eniwetok have been the scene of several atom-bomb tests.

Islands Under Provisional U. S. Administration

In accordance with the Japanese peace treaty signed Sept. 8, 1951, the U. S. may propose that the U. N. assign to it, as a trusteeship, the following former Japanese territory: the Ryukyu Islands south of 29° n. lat. (largest: Okinawa); the Bonin Islands

(largest: Chichi Jima); the Volcano Islands (including Iwo Jima); Rosario Island; Parece Vela; and Marcus Island. It was also agreed in the treaty that, until such trusteeship is actually granted, the U. S. will administer the islands.

CITIES

We planned the INFORMATION PLEASE ALMANAC as a book of national scope and interest. We avoided emphasis on and identification with a single city or state, as has been characteristic of all almanacs heretofore. Therefore, in designing this section on cities of the United States, we have included as many as our space permitted. To obtain accurate and authoritative information we have gone to the city officials and they have not only furnished the statistics, but have checked the narratives in this section. We appreciate the co-operation of all these city officials.

ATLANTA, GA.

Incorporated as city: 1847.
Mayor: William B. Hartsfield (Jan., 1954).
1940 population & (rank): 302,298 (28).
1950 population & (rank): 331,314 (33).
1952 estimated population: 450,000.
1940-50 population change: +9.6%.
1952 area: 117.47 sq. mi.
Altitude: Highest, 1,050 ft.; lowest, 940.
Location: In NW central part of state, near Chattahoochee River.
Counties: In Fulton and De Kalb Cos.; seat of Fulton Co.
Churches: For whites, more than 330; for Negroes, more than 150.
City-owned parks: 101 (2,135 ac.).
Telephones (May 1952): 224,633.

Families with radios: 200,000*.
Television sets: 185,000*.
Radio stations: AM, 10; FM, 5.
Television stations: 3.
Assessed valuation (1952 est.): \$655,000,000.
City tax rate (1952): \$25 per \$1,000.
Bonded debt (1951): \$19,643,382.
Revenue (1951): \$22,202,555.72.
Expenditure (1951): \$21,697,238.20.

* Metropolitan area.

One of the three largest paintings in the world is in Atlanta's Grant Park. The Cyclorama is 400 feet around, 50 feet high and weighs 18,000 pounds. It depicts one of the great moments of Atlanta's history—the Battle of Atlanta.

Atlanta was a strategic point for the Con-

federates in the Civil War—the chief base for recruiting and supplies in the far South, and the most important railway junction. The Battle of Atlanta, depicted in the Cyclo-rama, was fought on July 22, 1864, southeast of the city. General John B. Hood, commanding the Confederate forces, attacked General Sherman's army in an attempt to stop his progress through Georgia. The battle was inconclusive, the casualties terrific: an estimated 35,000. The two armies settled down to a siege which ended with the fall of Atlanta on Sept. 1.

General Sherman took possession of the city, rested his army until November, then burned Atlanta to the ground and started his devastating march to the sea.

Today Atlanta is one of the important financial and industrial centers of the Southeast. Its factories turn out 3,300 different commodities, including cotton goods, cottonseed oil, furniture and machinery. One of its best-known products is Coca-Cola, the formula for which was devised in an Atlanta home. It was first sold in 1886 at a little drugstore by the old town well. The present-day Coca-Cola plant in Atlanta, which is open to visitors, makes the syrup that supplies soda fountains and bottling plants throughout the Southeast.

BALTIMORE, MD.

Incorporated as city: 1797.

Mayor: Thomas D'Alessandro, Jr. (May, 1955).

1940 population & (rank): 859,100 (7).

1950 population & (rank): 949,708 (6).

1940-50 population change: +10.5%.

1940 area: Land, 78.7 sq. mi.; inland water, 6.9.

Altitude: Highest, 490 ft.; lowest, sea level.

Location: On upper Chesapeake Bay at mouth of Patapsco River.

County: Independent city.

Churches: Roman Catholic, 65; Jewish, 57; Protestant and other, 675 (170 colored).

City-owned parks: 148 (5,093 ac.).

Telephone subscribers (June 1952): 207,959.

Radio stations: AM, 8; FM, 4.

Television stations: 3.

Assessed valuation (1952): \$2,600,466,616.

City tax rate (1952): \$2.74 per \$100.

Net bonded debt (Jan. 1, 1952): \$182,407,726.

Revenue (1951 budget): \$114,703,326.

Expenditure (1951 budget): \$108,174,099.

Baltimore's fine harbor has made it the second port of the United States in foreign shipping tonnage. It has been an important port since the days of sailing vessels, and also a ship-building center. The Baltimore clipper was one of the best sailing ships of its day and was used extensively in world trade.

One of the major industrial centers of the U. S., Baltimore is noted for the diversity of its factory output and for its prominence in many individual lines of manufacture. The city carries on a large wholesale and jobbing trade, is an important banking and financial community, and is a leader in the writing of casualty insurance and fidelity and surety bonds.

Baltimore is the home of the interna-

tionally famous Johns Hopkins Hospital and Medical School and the University of Maryland Hospital and Medical School, two of the nation's best known medical institutions. The University of Maryland Dental School (oldest dental school in the world, founded in 1840) also is located in Baltimore.

Among the historical landmarks in the state is Ft. McHenry, whose shelling by the British in 1814 inspired Francis Scott Key's "The Star-Spangled Banner." It has been restored to its appearance in the early nineteenth century with officers' kitchen and mess rooms containing replicas of the artillery pieces used in 1812. The E. Berkley Bowie collection of firearms is there, together with furniture of the period and a flag exhibit. It is open to the public.

In addition to its pioneer history in shipping, Baltimore was the home of the pioneer railroad in the United States—the Baltimore and Ohio—and the first railroad passenger and freight station, erected in 1830.

BIRMINGHAM, ALA.

Incorporated as city: 1871.

Mayor: W. Cooper Green (Nov., 1953).

1940 population & (rank): 267,583 (35).

1950 population & (rank): 326,027 (34).

1940-50 population change: +21.8%.

1951 area: Land, 65.32 sq. mi.; inland water, 0.1.

Altitude: Highest, 1,052 ft.; lowest, 565.

Location: In N central part of state.

County: Seat of Jefferson Co.

Churches: Protestant, 491; Roman Catholic, 26; Jewish, 3.

City-owned parks: 60 (1,096 ac.).

Telephones: 148,484.

Television sets: 80,000.

Radio stations: AM, 9; FM, 2.

Television stations: 2.

Assessed valuation (1950): \$316,279,124.

City tax rate (1950): \$18 per \$1,000.

Net bonded debt (Aug. 1951): \$16,058,064.50.

Revenue (1952 budget): \$17,618,405.

Expenditure (1952 budget): \$17,607,945.

Pioneer Southern aristocrats once lived in the heart of Birmingham, but the tide of commerce has swept over the city in the last half century. The beautiful residential districts and the stately homes have now moved to the hills south of the city. For Birmingham, a vigorous industrial city, named after England's great steel-making city, in less than a century has become the iron and steel capital of the South. Huge steel mills and blast furnaces utilize the three natural resources—coal, iron ore and limestone—that are needed for steel. All are produced in the vicinity.

Other products of Birmingham's industries are heavy machinery, cement, freight cars, stoves, textiles. From Red Mountain, just southeast of the city, one can look down on the spectacular sight of flaming blast furnaces that light up the city and Jones Valley. In Vulcan Park, on US 31, at the top of Red Mountain, stands the iron statue of Vulcan, god of fire, created by Giuseppe Moretti from pig iron produced in the Birmingham area. The statue stands 53 feet high and weighs 60 tons.

BOSTON, MASS.

Incorporated as city: 1822.

Mayor: John B. Hynes (Jan. 1956).

1940 population & (rank): 770,816 (9)

1950 population & (rank): 801,444 (10).

1940-50 population change: +4.0%.

1940 area: Land, 46.1 sq. mi.; inland water, 19.8.

Altitude: Highest, 330 ft.; lowest, sea level.

Location: On Massachusetts Bay, at mouths of Charles and Mystic Rivers.

County: Seat of Suffolk Co.

Churches: Protestant, 183; Roman Catholic, 73; Jewish, 40; others, 74.

City-owned parks & parkways: 3,250.09 ac.

Telephones: 307,697.

Radio sets (Greater Boston Area): 870,000.

Television sets (Greater Boston area): 911,256.

Radio stations: AM, 8; FM, 6.

Television stations: 2.

Assessed valuation (1951): \$1,570,760,000.

City tax rate (1952): \$66.80 per \$1,000.

Net bonded debt (1952): \$70,551,157.11.

Revenue (1951): \$216,988,017.27.

Expenditure (1951): \$211,083,726.33.

No city in the U. S. is richer in historical associations than Boston, and no city has retained more of its original buildings as memorials to America's past.

Puritans from England settled at Boston in 1630, only ten years after the Pilgrims had landed at Plymouth in 1620. Fourteen years later, the pioneer Bostonians set aside the first public park in the U. S.—the Boston Common—for use as a "cow pasture and training field." The poet Emerson took his mother's cow there to graze. But certain people did not enjoy the Boston Common, because they were put in the stocks for profaning the Sabbath and other errant ways. The Common now contains many monuments and tablets.

Fifteen years after the original settlement of Boston, the first free public school in America was opened in 1835. Today Boston and Cambridge (across the Charles River) not only have Harvard University, but also nine other prominent institutions of higher learning.

Following are some of the historic places still extant in Boston which recapitulate the city's great place in the annals of America:

(1) The Old State House, built in 1713 on the site of the first Town House (1658). In front of it occurred the Boston Massacre (1770) in which British troops fired on a mob of citizens, killing six and fanning the flames of revolt. A few years later the Declaration of Independence was proclaimed from the balcony.

(2) The Old South Meeting House, erected first in 1669 and rebuilt in 1729. Here Boston citizens gathered to decide the fate of the hated tea tax imposed by the British. The "Boston Tea Party" followed in 1773, and the British Parliament retaliated by closing the port. Two years later the British attempted to seize the colony's military stores at nearby Concord. In order to thwart the seizure, Paul Revere made his famous ride that opened the Revolutionary War.

(3) Paul Revere House is the oldest house in Boston, built about 1660 and bought by

Paul Revere in 1770. It is now restored and furnished as it was in the days of Revere; and, like other historic places, it is open to the public.

(4) The Old North Church (1723), which is the oldest church building in Boston. Signal lanterns were displayed in the steeple to warn Paul Revere of the approach of the British.

(5) Faneuil Hall, the "Cradle of Liberty," which was the scene of stirring mass meetings during the revolutionary movement, and which was used by British officers as a theater during the occupation of the city. It now has historical paintings and a military museum.

Today Boston is the largest market of the shoe and leather industries in the world and also the largest wool market and the greatest fishing port in the U. S.

BUFFALO, N. Y.

Incorporated as city: 1832.

Mayor: Joseph Mruk (Jan., 1954).

1940 population & (rank): 575,901 (14).

1950 population & (rank): 580,132 (15).

1940-50 population change: +0.7%.

1940 area: Land, 39.4 sq. mi.; inland water, 10.8.

Altitude: Highest, 680 ft.; lowest, 571.

Location: At east end of Lake Erie, on Niagara River.

County: Seat of Erie Co.

Churches: Protestant, 268; Roman Catholic, 82; Jewish, 16; others, 34.

City-owned parks: 10 large (1,137 ac.), 41 minor (116 ac.).

Telephones: 273,384.

Radio sets: 323,942.

Television sets: 167,522.

Radio stations: AM, 6; FM, 3.

Television stations: 1.

Assessed valuation (1952): \$998,571,120.

City tax rate (1952): \$29.22 per \$1,000.

Bonded debt (1952): \$48,796,583.

Revenue (1952-53): \$57,354,603.85.

Expenditure (1952-53): \$57,354,603.85.

The first ship to sail the Great Lakes—the *Griffin*—was built near the present site of Buffalo by La Salle in 1679. Buffalo was still a relatively small town in 1813 when the British captured it and set its homes and buildings afire. Two years later, the town was rebuilt, and it began to thrive with the coming of the Erie Canal.

Today, Buffalo is the leading inland port of the U. S. in terms of the value of its commerce. The Great Lakes steamers connect it with Chicago and Duluth; and ships of foreign nations frequently visit its harbor. In addition, it is the second largest railroad center in the U. S. Both by water and by rail, Buffalo is a geographical middleman between the Midwest and the East. Much of the grain of the Midwest moves through the city, which can store in its elevators 57 million bushels of grain, chiefly wheat. This flow of wheat has made Buffalo the leading flour-milling and feed-manufacturing city in the world. Over 14 million barrels of flour are milled in Buffalo each year.

Buffalo is the twelfth largest U. S. city in manufacturing according to the 1947 Census of Manufactures, and the Buffalo industrial area is eleventh in value added by manufacture.

Adjoining Buffalo is Niagara Falls, which for generations has been the favorite scenic spot of honeymooners. The Niagara River is divided by Goat Island and plunges over the escarpment in two parts: the American Falls, 167 feet high, and the Canadian Falls, 158 feet high.

CHICAGO, ILL.

Incorporated as city: 1837.

Mayor: Martin H. Kennelly (Apr., 1955).

1940 population & (rank): 3,396,808 (2).

1950 population & (rank): 3,620,962 (2).

1940-50 population change: +6.6%.

1940 area: Land, 206.7 sq. mi.; inland water, 4.6.

Altitude: Highest, 665 ft.; lowest, 581.

Location: On lower west shore of Lake Michigan.

County: Seat of Cook Co.

Churches: Protestant, 1,725; Roman Catholic, 299; Jewish, 170.

City-owned parks: 300 (8,557 ac.).

Telephones: 1,565,354.

Radio sets: 2,235,990.

Television sets: 1,160,000.

Radio stations: AM, 25; FM, 22.

Television stations: 4.

Assessed valuation (1950): \$8,761,145,359.

City tax rate (1951): \$3.276 per \$100.

Bonded debt (1951): \$380,689,800.

Revenue (1951): \$471,797,592.71.

Expenditure (1950): \$471,732,456.69.

The first white men known to have visited Chicago were Joliet and Marquette in 1673. Fort Dearborn, a blockhouse and stockade, was built in 1804, but was evacuated in 1812, with more than half of its garrison massacred at what is now the foot of 18th Street. Not until 1830 was the town laid out. Forty-one years later it was destroyed in the great fire.

Chicago today is the greatest slaughtering and meat-packing center in the world. Visitors to the Union Stock Yards can go on tours through the Armour plant and the Swift plant. Chicago also is one of the major grain-trading centers. There is a visitors' gallery overlooking the trading floor in the Chicago Board of Trade building, which is 44 stories and has an observatory 524 feet above the street. The Merchandise Mart, which covers two square blocks, is the second largest office building in the world, exceeded only by the Pentagon in Washington. Tours are conducted daily in which visitors can see showrooms of leading manufacturers of home goods. The city's factories turn out agricultural implements, electrical machinery and railway cars, among many other products.

Chicago stretches along the shore of Lake Michigan for 22 miles, and has many beaches and lake shore parks. The Chicago Natural History Museum ranks among the world's foremost museums of anthropology, botany, zoology and geology. It has the world's larg-

est collection of meteorites, and is noted also for its dioramas of prehistoric man in the Hall of the Stone Age.

CINCINNATI, OHIO

Incorporated as city: 1819.

Mayor: Carl W. Rich (Nov., 1953).

City Manager: W. R. Kellogg (Apptd. 1944).

1940 population & (rank): 455,610 (17).

1950 population & (rank): 503,998 (18).

1940-50 population change: +10.6%.

1951 area: Land, 75.4 sq. mi.; inland water, 0.

Altitude: Highest, 970 ft.; lowest, 441.

Location: In SW corner of state on Ohio River.

County: Seat of Hamilton Co.

Churches: Protestant, 500*; Roman Catholic, 67; Jewish, 10.

City-owned parks: 84 (3,656 ac.).

Telephones: 350,000.

Families with radios: 357,000†.

Television sets: 255,000.

Radio stations: AM, 5; FM, 3.

Television stations: 3.

Assessed valuation (1951): \$1,120,000,000.

City tax rate (1951): \$14.84 per \$1,000.

Bonded debt (1951): \$93,398,941.05.

Revenue (1951): \$29,411,095.30.

Expenditure (1951): \$26,817,277.58.

* Data for Hamilton County. † In listening area; 50 mi. radius.

Cincinnati began life in 1788 as a small settlement called Losantiville, perched on a plateau above the Ohio River. Its strategic location in the Western Territory led to the building of Fort Washington, the most ambitious military establishment in the territory. The community that grew up around the fort was named Cincinnati, after the Society of the Cincinnati, whose name stemmed from Roman times.

The first legislature of the Northwest Territory met here in 1799 and elected as its delegate to Congress William Henry Harrison, who later became President of the U. S. A much later President, William Howard Taft, was born in a suburb of Cincinnati. The Taft Museum, which is open to the public every day, serves as a reminder of the family's role in the city's prominence. It contains an art collection donated by Mr. and Mrs. Charles P. Taft.

Cincinnati's industrial concerns include the Proctor and Gamble Soap Company, the Crosley Division of Avco, General Electric, General Motors, the Ford Motor Company, the Cincinnati Milling Machine Company, the Gruen Watch Company, and the United States Playing Card Company, the largest establishment of its kind in the world.

CLEVELAND, OHIO

Incorporated as city: 1836.

Mayor: Thomas A. Burke (Nov., 1953).

1940 population & (rank): 878,336 (6).

1950 population & (rank): 914,808 (7).

1940-50 population change: +4.2%.

1940 area: Land, 73.1 sq. mi.; inland water, 0.

Altitude: Highest, 865 ft.; lowest, 573.

Location: On Lake Erie at mouth of Cuyahoga River.

County: Seat of Cuyahoga Co.

Churches: Protestant, 377; Roman Catholic, 87; Jewish, 36; others, 6.

City-owned parks: 35 (2,420 ac.).
 Telephones: 580,958.
 Radio sets: 1,125,000.
 Television sets: 624,000*.
 Radio stations: AM, 8; FM, 7.
 Television stations: 3.
 Assessed valuation (1951): \$1,766,087,739.
 City tax rate (1951): \$35.60 per \$1,000.
 Bonded debt (1952): \$123,790,560.
 Revenue (1951): \$157,352,873.
 Expenditure (1951): \$135,279,950.

* In northern Ohio; 80% in Metropolitan Cleveland.

The largest city in Ohio and sixth in the U. S., Cleveland was founded in 1796 by General Moses Cleaveland, who was the head surveyor of the Connecticut Land Company. This company had bought three million acres in what is now northern Ohio, paying 40 cents an acre. An acre in downtown Cleveland today would bring some two million dollars.

Cleveland is an important Great Lakes shipping point and the site of iron and steel manufacturing. Other products include paints, varnishes, electrical appliances, chemicals, and automobile parts.

In addition to industry, Cleveland is interested in cultural developments. It has the only municipally owned and operated dramatic project in the country—Cain Park Theatre, in suburban Cleveland Heights, having its season in summer and early autumn. The Cleveland Orchestra, which is nationally known, gives informal pop concerts in the summer and a regular series of concerts in the winter.

In the Cleveland Cultural Gardens, a mile-long strip of park area, more than thirty nationality groups represented in Cleveland's population are creating gardens as memorials to peace.

DALLAS, TEX.

Incorporated at city: 1871.
 Mayor: J. B. Adoue, Jr. (May, 1953).
 City Manager: Elgin E. Crull (apptd. 1952).
 1940 population & (rank): 294,734 (31).
 1950 population & (rank): 434,462 (22).
 1940-50 population change: +47.4%.
 1952 area: Land, 159.53 sq. mi.; inland water, 1.2.
 Altitude: Highest, 500 ft.; lowest, 390.
 Location: In NE part of state, on Trinity River.
 County: Seat of Dallas Co.
 Churches: 500.
 City-owned parks: 86 (5,800 ac.).
 Radio sets: 336,000.
 Television sets: 55,000.
 Radio stations: AM, 7; FM, 3.
 Television stations: 2.
 Assessed valuation (1950): \$772,697,670.
 City tax rate (1950): \$1.90 per \$100.
 Net bonded debt (Oct. 1, 1952): \$84,761,500.
 Revenue (1952-53): \$38,868,590.
 Expenditure (1952-53): \$38,868,590.

The Dallas Cotton Exchange handles about two million bales of cotton a year in normal times. The city produces more cotton gins than any other city in the world.

Dallas is also pre-eminent in the produc-

tion of saddlery and harness and leather goods, and ranks third in the distribution of farm implements.

The Fair Park in East Dallas, is a \$30-million permanent exposition plant, open as a city park. It is the home of the annual State Fair. Its Hall of State is a shrine to Texas heroes and contains two of the world's largest murals.

Dallas is also the home of the fourth largest aquarium in the U. S., the 78,500-capacity Cotton Bowl and many other cultural and amusement sites.

DENVER, COLO.

Incorporated as city: 1861.
 Mayor: Quigg Newton (June, 1955).
 1940 population & (rank): 322,412 (24).
 1950 population & (rank): 415,786 (24).
 1940-50 population change: +29.0%.
 1950 area: Land, 67.74 sq. mi.; inland water, 0.8.
 Altitude: Highest, 5,470 ft.; lowest, 5,130.
 Location: In NE central part of state, on South Platte River.
 County: Coextensive with Denver Co.
 Churches: Protestant and miscellaneous, 289; Roman Catholic, 30; Jewish, 16.
 City-owned parks: 42 (1,634 ac.).
 City-owned mountain parks: 30 (20,897 ac.).
 Families with telephones: 115,000.
 Families with radios: 112,700.
 Radio stations: AM, 6; FM, 3.
 Television stations: 3.
 Assessed valuation (1951): \$800,000,000.
 City tax rate (1952): \$42 per \$1,000.
 Bonded debt (1952): \$11,500,000.
 Revenue (1951): \$25,892,757.
 Expenditure (1951): \$26,639,317*.

* Surpluses from previous year available for excess of expenditure over revenue.

A traveler going west across the U. S. crosses the great plains and comes upon Denver lying just at the foot of the Rocky Mountains. The city was born in 1858 when gold was discovered in the sands of Cherry Creek. It began as a tough village of cabins, shacks and tents.

Denver now is the cultural and transportation center of a vast Rocky Mountain region. Its important industries include meat packing plants, flour mills and factories making tires, saddlery and porcelain.

No other city in the country has such a magnificent system of mountain parks. The nearest is 13 miles from the city, and the farthest limit of the park system extends 50 miles to the west. The main circle drive winds up Lookout Mountain to the top where the rock tomb of Buffalo Bill is situated, along with the Cody Museum. The municipal game preserve has herds of buffalo, elk and deer.

The most spectacular view of the region is obtainable from Mount Evans, 14,260 feet, which is reached by a scenic drive that is the highest automobile road in North America. Other drives through some of the grandest scenery of the Rockies are to Colorado Springs, to the south, and to Estes Park, which is the eastern entrance to Rocky Mountain National Park.

DES MOINES, IOWA

Incorporated as city: 1857.

Mayor: Allan W. Denny (Apr., 1954).

City Manager: Leonard G. Howell (Apptd. 1950).

1940 population & (rank): 159,819 (55).

1950 population & (rank): 177,965 (53).

1940-50 population change: +11.3%.

1950 area: Land, 53.8 sq. mi.; inland water, 0.

Altitude: 861 ft.

Location: In south central part of state, at junction of Raccoon and Des Moines Rivers.

County: Seat of Polk Co.

Churches: Protestant, 184; Roman Catholic, 13; Jewish, 4.

City-owned parks: 57 (1,613.25 ac.).

Telephones: 89,462.

Radio sets: 153,616.

Television sets: 17,243.

Radio stations: AM, 6; FM, 4.

Television stations: None.

Assessed valuation (1952): \$184,640,050.

City tax rate (1952): \$25.876 per \$1,000.

Bonded debt (1952): \$7,283,675.

Revenue (1952): \$7,474,358.

Expenditure (1952): \$6,164,316.

Des Moines sits at the heart of a prairie state, Iowa, which has more land under cultivation, in proportion to its area, than any other state. More corn is produced in Iowa than in any other area of equal size in the world—one-fifth of the corn crop of the U. S. More hogs are raised in Iowa than in any other state, and Iowa is second only to Texas in the number of cattle.

Des Moines, the home of 51 home insurance companies, and the location of more than 100 state, district or regional offices of other insurance companies, is known as the insurance center of the west. More than 5,000 people are engaged in the insurance business in Des Moines.

Des Moines manufacturing plants produce over 500 different products valued at more than \$330,000,000 annually and sold throughout the world. These products include: cosmetics; chemicals; medicines; wearing apparel, including hosiery, gloves, caps and sports goods; tools; machinery; automobile accessories; tires; food products; agricultural equipment; airplane parts and many others.

Although Iowa as a whole is agricultural, Des Moines is surrounded by rich coal fields on both sides of the Des Moines River. The coal has contributed to the industrial development of the city, which has almost 300 manufacturing plants.

DETROIT, MICH.

Incorporated as city: 1824.

Mayor: Albert E. Cobo (Jan., 1954).

1940 population & (rank): 1,623,452 (4).

1950 population & (rank): 1,849,568 (5).

1940-50 population change: +13.9%.

1940 area: 137.9 sq. mi.; inland water, 4.1.

Altitude: Highest, 685 ft.; lowest, 574.

Location: In SE part of state, on Detroit River.

County: Seat of Wayne Co.

Churches: Protestant, 850*; Catholic, 139; Jewish, 38.

City-owned parks: 326 (5,737 ac.).

Telephones: 917,526.

Radio sets: 772,800.

Television sets: 704,481.

Radio stations: AM, 6; FM, 10.

Television stations: 3.

Assessed valuation (1952): \$4,497,951,930.

City tax rate (1952): \$22.276 per \$1,000.

Net bonded debt (July 31, 1952): \$246,442,498.

Revenue (1952): \$291,726,746.†

Expenditure (1952): \$287,855,474.†

* Metropolitan area. † Excludes school system.

Detroit is the oldest city of any size west of the seaboard colonies, having been founded in 1701, more than a century before Chicago was founded. The French were the settlers, and they gave the city its name from their word meaning "strait." They referred to the 27-mile-long Detroit River which connects Lake Erie and Lake St. Clair. The river forms part of the international boundary, and marks the only point where Canada lies directly south of U. S. territory.

Because of its strategic location, Detroit was fought over by the French, the British and the Indians. During the Revolutionary War, it served as headquarters for the British forces in the Northwest. The first steam vessel, the *Walk-in-the-Water*, made its appearance on the Great Lakes in 1818, and Detroit was the western terminus for most of its voyages from Buffalo. Today hundreds of ships, carrying the immense commerce of the Great Lakes, call at Detroit and link it by water to all the important cities on the Great Lakes. Detroit ranks fourth in the U. S. as an exporting port.

No other city in the world equals Detroit as an automobile-manufacturing center. The plants include Ford, General Motors, Hudson, Packard, Chrysler and Kaiser-Frazer. Most plants are open for public tours. Apart from automobiles, Detroit manufactures a wide range of products—adding machines, pharmaceuticals, steel barrels, television equipment.

Belle Isle, a thousand-acre park in the Detroit River, has bathing and boating facilities, tennis and golf, zoological gardens and an aquarium.

HARTFORD, CONN.

Incorporated as city: 1784.

Mayor: Joseph V. Cronin (Dec., 1953).

City Manager: Carleton F. Sharpe (Apptd. 1948).

1940 population & (rank): 166,267 (51).

1950 population & (rank): 177,397 (54).

1940-50 population change: +6.7%.

1940 area: Land, 17.4 sq. mi.; inland water, 1.2.

Location: In central part of state, on Connecticut River.

County: Seat of Hartford Co.

Churches: Protestant, 94; Roman Catholic, 14; Jewish, 6.

City-owned parks: 29 (2,800 ac.).

Radio stations: AM, 6; FM, 2.

Television stations: None.

Assessed valuation (1951): \$516,805,060.

City tax rate (1952): \$35.75 per \$1,000.

Net bonded debt (Mar. 31, 1952): \$10,446,777.

Revenue (1952): \$21,564,713.49.

Expenditure (1952): \$20,631,526.92.

A Dutch trading post, established in 1623, was the beginning of Hartford. Thirteen years later, English colonists from Cambridge, Mass., started a permanent settlement and soon afterward made it the capital of the Colony of Connecticut.

The Dutch were expelled from Connecticut in 1654, but Hartford's troubles were not over. In 1687, the Governor of New York appeared at Hartford and demanded the Connecticut charter, on the grounds that he was Governor General of New England, too. The charter was hidden in a hollow oak tree for two years until King William III recognized it as valid.

By now, Hartford has become the greatest insurance center in the nation: 48 companies have their headquarters there, and their combined assets exceed \$3 billion. In addition, Hartford is the home of the largest type-writer manufacturers in the world—Underwood and Royal. Its chief newspaper, *The Hartford Courant*, is the oldest in America; an earlier subscriber was George Washington, and Israel Putnam was its war correspondent during the Revolution.

Historical treasures are kept in the State Library and Supreme Court Building. Among them are a full-length portrait of Washington by Gilbert Stuart; the original charter signed by Charles II; the Brandegee collection of portraits of U. S. Justices; and the Joseph C. Mitchelson collection of coins, bills and commercial tokens of interest to students of numismatics.

HOUSTON, TEX.

Incorporated as city: 1837.

Mayor: Roy Hofheinz (Jan., 1955).

1940 population & (rank): 384,514 (21).

1950 population & (rank): 596,163, (14).

1940-50 population change: +55.0%.

1950 area: Land, 160 sq. mi.; inland water, 0.

Altitude: Highest, 74 ft.; lowest, sea level.

Location: In SE part of state, near Gulf of Mexico.

County: Seat of Harris Co.

Churches: Over 500.

City-owned parks: 75 (3,201 ac.).

Telephones: 300,000.

Radio sets: 350,000.

Television sets: 85,000.*

Radio stations: AM 8; FM, 3.

Television stations: 1

Assessed valuation (1951): \$996,527,000; (1952 est.): \$1,060,000,000.

City tax rate: \$1.975 per \$100.

Bonded debt (1950): \$73,394,422.

Revenue (1951): \$20,875,362.

Expenditure (1951): \$23,995,086.

* Metropolitan area.

Sam Houston was the commander in chief of the Texas troops who fought a successful war of rebellion against domination by Mexico, which had been in possession of Texas. On April 21, 1836, Houston's men won a decisive victory in which the Mexican general, Santa Anna, was taken prisoner, and signed the treaty which launched the Republic of Texas. In September, a constitution was ratified, and Houston was elected President. The Texas Republic was recognized by

the U. S. and by the major European powers.

The present city of Houston, which is the largest in Texas and the entire South, honors Sam Houston, who was president of the erstwhile republic. This was its first capital. Today great industrial establishments line Houston's ship channel. A leading export center, Houston leads all others in America in cotton exports. It is one of America's outstanding oil-producing and refining centers, and leads the world in the manufacture and distribution of oil-industry equipment. Among the new industries that are being developed in Houston are synthetic rubber and chemicals.

Houston is the second-largest port in the nation from the standpoint of tonnage handled.

INDIANAPOLIS, IND.

Incorporated as city: 1874.

Mayor: Alex M. Clark (Dec., 1955).

1940 population & (rank): 386,972 (20).

1950 population & (rank): 427,173 (23).

1940-50 population change: +10.4%.

1940 area: Land, 53.6 sq. mi.; inland water, 0.1.

Altitude: Highest, 816 ft.; lowest, 667.

Location: In central part of state, on West

Fork of White River.

County: Seat of Marion County.

Churches: 515.

City-owned parks: 32 (3,519 ac.).

Telephones: 203,644.

Radio sets: 135,780 (radio families).

Television sets: 90,000.

Radio stations: AM, 5; FM, 1.

Television stations: 1.

Assessed valuation (1949): \$496,915,240.

City tax rate (1949): \$4.412 per \$100.

Gross debt (Dec. 31, 1948): \$6,804,000.

Revenue (1948): \$11,620,000.

Expenditure (1948): \$12,638,000.

Indianapolis is the second largest city in the U. S. which is not on navigable water. Its size and extensive trade is based on the rich territory surrounding it. The cornfields of the region make Indianapolis the second corn market in the United States. There are also in the region large coal fields and deposits of building stone and marl.

The Indianapolis Motor Speedway, five miles from the center of the city, was built in 1909 as a proving ground for automobiles. Each Memorial Day a 500-mile race is held there. Various well-known improvements in automobiles are credited to the experience gained on the speedway. Among them are the rear-vision mirror, the balloon tire and ethyl gasoline.

The homes of two famous citizens of Indianapolis are preserved as memorials. One is the home of James Whitcomb Riley, which is preserved as it was when the famous Hoosier poet lived there. The other is the home Benjamin Harrison built in 1872. He lived there except for the period of his service as United States Senator, and as the twenty-third President of the United States. Much of the furniture is original. Both these homes are open to the public at a small fee.

JERSEY CITY, N. J.

Incorporated as city: 1855.

Mayor: John V. Kenny (May, 1953).

1940 population & (rank): 301,173 (30).

1950 population & (rank): 299,017 (37).

1940-50 population change: -0.7%.

1940 area: Land, 14.3 sq. mi.; inland water, 7.2.

Altitude: Highest, 180 ft.; lowest, sea level.

Location: In NE part of state, on Hudson River and Upper New York Bay.

County: Seat of Hudson Co.

Churches: Protestant, 96; Roman Catholic, 39; Jewish, 17; Others, 45.

Telephones: 83,876.

Radio stations: None.

Television stations: None.

Assessed valuation (1951): \$477,198,646.

City tax rate (1951): \$73.27 per \$1,000.

Bonded debt (1951): \$29,512,500.

Revenue (1951): \$52,302,735.

Expenditure (1951): \$45,418,432.

LOS ANGELES, CALIF.

Incorporated as city: 1850.

Mayor: Fletcher Bowron (June, 1953).

1940 population & (rank): 1,504,277 (5).

1950 population & (rank): 1,970,358 (4).

1940-50 population change: +31.0%.

1952 area: Land, 451.0 sq. mi.; inland water, 2.6.

Altitude: Highest, 2,785 ft.; lowest, sea level.

Location: In SW part of state, on Pacific Ocean.

County: Seat of Los Angeles Co.

Churches: 1,700.

City-owned parks: 110 (9,600 ac.).

Telephones: 959,215.

Radio sets: 4,000,000.*

Television sets: 1,297,000.*

Radio stations: AM, 12; FM, 7.

Television stations: 7.

Assessed valuation (1952): \$2,791,452,080.

City tax rate (1952-53): \$1.7551 per \$100.

Gross debt (June 30, 1952): \$316,856,000.

Revenue (1951-52): \$301,432,887.15.

Expenditure (1951-52): \$288,163,287.50.

* Metropolitan area.

In 1781, the Mexican Provincial Governor, Felipe de Neve, founded "El Pueblo de Nuestra Señora la Reina de Los Angeles"—meaning "The Village of Our Lady, the Queen of the Angels." The pueblo became the capital of a Mexican province, and it was the last place to surrender to the U. S. at the time of the American occupation in 1847.

Los Angeles now is the largest in population of any city in the West and is the fourth largest in the nation. Geographically, it extends more than 40 miles from the mountains to the sea; and in area, it is the world's largest city. The city's phenomenal growth has been brought about primarily by five factors:

(1) The equable climate, which has attracted people and industry from all parts of the nation.

(2) Development of the citrus-fruit industry. Orange and other citrus groves extend to the east in a huge arc, reaching a radial depth of more than 30 miles at some points.

(3) Oil fields. Both to the north and to the southeast of Los Angeles, forests of oil

derricks proclaim the discovery and exploitation of vast fields of underground wealth.

(4) Development of a man-made harbor. The port of Los Angeles is the world's largest fishing harbor and one of its most prominent ports in tonnage volume.

(5) The motion-picture industry. More than two-thirds of all motion pictures are produced in the Los Angeles metropolitan area.

The climate of the city is reflected in the facilities for open-air living. In Los Angeles, the drive-in cafe and drive-in theater were originated, and Angelenos enjoy sports the year-round and "Symphonies under the Stars" in famed Hollywood Bowl.

Exposition Park has a 7-acre sunken garden containing 15,000 rosebushes of 155 varieties. In the park is the Coliseum, in which the 1932 Olympic Games were held. It seats 101,671 persons and is the home field for the Los Angeles Rams and the U.S.O. and U.C.L.A. football teams.

Adjoining Los Angeles, within a few minutes by bus or car, is Pasadena, famous for its New Year's Day "Tournament of Roses." Also nearby is San Marino, home of the Henry E. Huntington Library and Art Gallery. Beaches within easy driving distance include Venice, Malibu, Hermosa, Redondo, Santa Monica and Long Beach.

MEMPHIS, TENN.

Incorporated as city: 1849.

Mayor: S. Watkins Overton (Jan., 1956).

1940 population & (rank): 292,942 (32).

1950 population & (rank): 396,000 (26).

1940-50 population change: +35.2%.

1950 area: Land, 104.25 sq. mi.; inland water, 11.6.

Altitude: Highest, 320 ft.; lowest, 195.

Location: In SW corner of state, on Mississippi River.

County: Seat of Shelby Co.

City-owned parks: 39 (2,300 ac.); playgrounds, 45.

Telephones: 159,266.

Radio sets: 215,000.

Television sets: 92,000.

Radio stations: AM, 6; FM, 2.

Television stations: 1.

Assessed valuation (1951): \$512,738,714.27.

City tax rate (1951): \$1.80 per \$100.

Bonded debt (1951): \$29,533,857.

Revenue (1951 budget): \$12,665,747.44.

Expenditure (1951 budget): \$12,388,135.81.

One of the country's largest inland ports, Memphis handles more than 4 million bales of cotton a year, making it the biggest single cotton market in the world. It likewise ranks first in the world as a market for hardwood lumber. It is also a leading mule market.

The first settlers of Memphis were the Chickasaw Indians, who had a village named Chisca there on the bluffs overlooking the Mississippi River. Hernando de Soto, in 1541, is said to have had his first glimpse of the Mississippi from the site of Memphis; and in the next century, Joliet and Marquette stopped there to trade with the Indians. La Salle tried to claim the region for France in 1682 and built a fort.

Actually the city was not settled until 1819, after Tennessee had been taken into the Union in 1796. One of the three founders of Memphis was Andrew Jackson. During the Civil War, the federal forces won a gunboat battle on the river at Memphis, and General Sherman was enabled to take the city. Confederate Park today contains ramparts from which Confederate soldiers defended the city against the federal gunboats.

MIAMI, FLA.

Incorporated as city: 1896.
 Mayor: Chelsie J. Senerchia (Nov., 1954).
 City manager: Gen. E. A. Evans (apptd. Sept. 1, 1952).
 1940 population & (rank): 172,172 (48).
 1950 population & (rank): 249,276 (42).
 1940-50 population change: +44.8%.
 1950 area: Land, 34.19 sq. mi.; inland water, 18.45.
 Altitude: Average, 10 ft.
 Location: In SE part of state, on Biscayne Bay.
 County: Seat of Dade Co.
 Churches: 235.
 City-owned parks: 48 (613 ac.).
 Telephones: 214,000.
 Radio sets: 165,000.
 Television sets: 125,000.
 Radio stations: AM, 6; FM, 4.
 Television stations: 1.
 Assessed valuation (1952-53): \$585,253,940.
 City tax rate (1952-53): \$21.12 per \$1,000.
 Bonded debt (1952-53): \$21,718,000.
 Revenue (1952-53): \$17,846,651.
 Expenditure (1952-53): \$19,600,183.

For the variety and quantity of its sports events, Miami can lay claim to being the most athletic city in the nation. In the matter of fishing, for example, there is a winter tournament that begins about the middle of January and runs through April; then comes a summer tournament that runs from July to early September. There are jai-alai games nightly from Christmas into April. There is greyhound racing on three tracks from December into March.

In case these events are not enough for the thousands of tourists who flock to Miami, there is the Orange Bowl football game on New Year's Day—followed by an open golf tournament—followed by a dinghy regatta—followed by a general sailing regatta in March. And there are horse races at Hialeah Park and Tropical Park from mid-December until April. Hialeah is noted as one of the most beautiful horse-racing tracks in the world, with its coconut palms, its tropical gardens, and the largest flock of flamingoes in Florida.

Miami is the southernmost large city on the U. S. mainland. To the south, a unique overseas highway goes down the Florida Keys to Key West, connecting the islands by bridges. To the west, the Tamiami Trail leads across the Everglades to Tampa.

MILWAUKEE, WIS.

Incorporated as city: 1846.
 Mayor: Frank P. Zeldin (April, 1956).
 1940 population & (rank): 587,472 (13).
 1950 population & (rank): 637,392 (13).

1940-50 population change: +8.5%.
 1952 area: Land, 50.668 sq. mi.; inland water, 0.
 Altitude: Highest, 740 ft.; lowest, 581 ft.
 Location: In SE part of state, on Lake Michigan.
 County: Seat of Milwaukee Co.
 Churches: 374.
 County-owned parks: 75 (7,086 ac.).
 Telephones: 328,000.
 Radio sets: 196,700.
 Television sets: 198,028.*
 Radio stations: AM, 7; FM, 2.
 Television stations: 1.
 Assessed valuation (1951): \$1,338,504,950.
 City tax rate (1951): \$30.50 per \$1,000.
 Gross debt (Dec. 31, 1951): \$17,312,000.
 Revenue (1951): \$72,810,668.
 Expenditure (1952 budget): \$81,904,066.

* County figure.

French missionaries visited the site of Milwaukee in the seventeenth century, but it was not until 1795 that Jacques Vieau established a trading post there. The first permanent white settler, Vieau's son-in-law, Solomon Juneau, made his home there in 1818.

Milwaukee is one of the great industrial centers of the country, producing heavy machinery, electrical equipment, chemicals, food and leather products, etc. It is famous for its breweries, which are open to visitors by appointment. The city-owned harbor is one of the largest and best-equipped on the Great Lakes. It serves both lake- and ocean-going vessels.

A Wisconsin State Fair, held annually in August, includes a state art exhibit and automobile and horse racing. The Milwaukee Auditorium is one of the largest exposition buildings in the country, with 8 separate halls under one roof, the smallest seating 300 and the largest 7,200. A new addition provides the most modern arena in America. It has a seating capacity of 12,500 and is equipped with an ice floor for hockey, skating and ice shows.

Of particular note is the Milwaukee County park system with its botanical gardens, zoo and recreational facilities. This is also true of its cultural institutions, including the museum, public library and educational institutions.

MINNEAPOLIS, MINN.

Incorporated as city: 1867.
 Mayor: Eric G. Hoyer (July, 1953).
 1940 population & (rank): 492,370 (16).
 1950 population & (rank): 521,718 (17).
 1940-50 population change: +6.0%.
 1952 area: Land, 58.79 sq. mi.; inland water, 5.0.
 Altitude: Highest, 945 ft.; lowest, 695.
 Location: In SE central part of state, on Mississippi River.
 County: Seat of Hennepin Co.
 Churches: 465.
 City-owned parks: 143.
 Telephones: 297,448.
 Radio sets: 410,000.
 Television sets: 162,100.
 Radio stations: AM, 10; FM, 3.

Television stations: 2.

Assessed valuation (1952): \$327,000,000.

City tax rate (1952): \$1.45 per \$100.

Net debt (1951): \$45,660,000.

Revenue (1951): \$47,000,000.

Expenditure (1951): \$52,000,000.

Lieutenant Zebulon Pike made a treaty with the Sioux Indians in 1805-06 by which they ceded to the whites land including the Falls of St. Anthony and the site of Minneapolis. Fort Snelling was built in 1819-20, and in 1823 the government built a lumber and flour mill. Today Minneapolis is one of the outstanding flour-milling centers. Serving a vast agricultural region, the city is the largest distributing center for tractors and farm implements.

Not far from the city on the Mississippi River is U. S. Lock and Dam No. 1, a few miles above which is the head of navigation. From there to St. Louis, a river stretch of 659 miles, 26 dams insure a 9-foot channel for navigation. Minnehaha Park along the Mississippi contains Minnehaha Falls, made famous by Longfellow's poem, *The Song of Hiawatha*. Above the falls is a statue of Hiawatha and Minnehaha.

Minneapolis has 22 lakes within its park system, offering fishing, bathing and sail-boating in the summer, iceboating and skating in the winter. Twelve miles west of the city is Lake Minnetonka, which has 110 miles of shore line. Minneapolis is also the gateway city to the "Land of the 10,000 Lakes."

Across the Mississippi is Minneapolis' "twin city," St. Paul.

NEWARK, N. J.

Incorporated as city: 1836.

Mayor: Ralph A. Villani (May, 1953).

1940 population & (rank): 429,760 (18).

1950 population & (rank): 438,776 (21).

1940-50 population change: +2.1%.

1950 area: Land, 23.75 sq. mi.; inland water, 3.2.

Altitude: Highest, 225 ft.; lowest, sea level.

Location: In NE part of state, on Passaic River and Newark Bay.

County: Seat of Essex Co.

Churches: Protestant, 159; Roman Catholic, 41; Jewish, 32; others, 57.

City-owned parks: 38 (34.24 ac.).

County-governed parks in city: 7 (755.72 ac.).

Telephones: 206,074.

Radio stations: AM, 4; FM, 3.

Television stations: 1.

Assessed valuation (1952): \$694,985,210.

City tax rate (1952): \$7.56 per \$100.

Net bonded debt (1952): \$42,312,866.49.

Revenue (1950): \$57,446,652.76.

Expenditure (1950): \$55,028,447.86.

NEW ORLEANS, LA.

Incorporated as city: 1805.

Mayor: De Lesseps S. Morrison (May, 1954).

1940 population & (rank): 494,537 (15).

1950 population & (rank): 570,445 (18).

1940-50 population change: +15.3%.

1940 area: Land, 199.4 sq. mi.; inland water, 164.1.

Altitude: Highest, 15 ft.; lowest, 4 below sea level.

Location: In SE part of state, between Mississippi River and Lake Pontchartrain.

Parish: Seat of Orleans Parish.

Churches: Over 600.

City-owned parks: 69 (1,700 ac.).

Telephones: 210,412.

Radio sets: 195,000.

Television sets: 55,000.

Radio stations: AM, 11; FM, 4.

Television stations: 1.

Assessed valuation (1952): \$734,915,586.

City tax rate (1952): \$3.15 per \$100.

Bonded debt (1952): \$47,341,000.

Revenue (1952 budget): \$18,074,415.

Expenditure (1952 budget): \$18,074,415.

One of the few cities of the nation that have been under three flags, New Orleans has belonged to Spain, France and the U. S. The French founded it in 1718 and named it in honor of the Duke of Orleans.

In 1762, France ceded the city and the territory to Spain. In 1800, the territory was returned to France, but government authorities did not take over until 1803, only 20 days before the region became part of the U. S. in the Louisiana Purchase.

As a memento of the old days, New Orleans has a French Quarter, or Vieux Carré, which has fascination for tourists and for gourmets. The narrow streets are overhung with the iron-trellised balconies of quaint old dwellings and shops. The restaurants are celebrated for their good food and unusual dishes.

Six miles below the city is Chalmette National Historical Park, which marks the battlefield on which Andrew Jackson defended New Orleans against the British in 1815. The British suffered 1,971 casualties, while the Americans suffered only 13. It was the last battle fought between the U. S. and Great Britain, the peace treaty having been signed at Ghent 15 days before the battle. The news had not yet reached New Orleans.

One of the city's historic buildings is the Cabildo, dating back to 1795, which was the headquarters of the Spanish governor. It later was the scene of the transfer of Louisiana from France to the U. S. Now it is a museum with historical and art displays.

The most spectacular and gayest festival in the U. S. is held in New Orleans—the Mardi Gras, which involves a week of carnival and reaches its climax on Shrove Tuesday, the day before the beginning of Lent. On the more serious side, the city is one of the great ports of the U. S., second only to New York in dollar volume of cargo handled each year. It has 23 miles of developed water frontage.

NEW YORK, N. Y.

Chartered as "Greater New York": 1898.

Mayor: Vincent R. Impellitteri (Dec., 1953).

Borough Presidents: Bronx, James J. Lyons;

Brooklyn, John Cashmore; Manhattan,

Robert F. Wagner, Jr.; Queens, James A.

Lundy; Richmond, Cornelius A. Hall.

1940 population & (rank): 7,454,995 (1).

1950 population & (rank): 7,891,957 (1).
 1940-50 population change: +5.9%.
 1940 area: Land, 299.0 sq. mi.; inland water, 66.4 sq. mi.
 Altitude: Highest, 430 ft.; lowest, sea level.
 Counties: Consists of 5 counties: Bronx, Kings (Brooklyn), New York (Manhattan), Queens, Richmond (Staten Island).
 Location: SE part of state, at mouth of Hudson River.
 Churches: Protestant, 1,418; Jewish, 1,330; Roman Catholic, 525.
 City-owned parks: 882 (26,627 ac.).
 Telephones: 2,365,000.
 Families with radios: 2,258,470.
 Television sets: 1,475,000.
 Radio stations: AM, 25; FM, 23.
 Television stations: 6.
 Assessed valuation (1951): \$18,776,760,946.
 City tax rate (1951): \$3.08 per \$100.
 Bonded debt (1951): \$3,240,545,785.46.
 Revenue (1951): \$1,251,456,083.66.
 Expenditure (1951): \$1,253,373,347.76.

In 1609, Henry Hudson, who worked for the Dutch East India Company, sailed up the river that now bears his name and went as far as Albany. Five years later, a permanent settlement was established at what is now New York, but it was originally called New Amsterdam by the Dutch governors. One of them, Peter Minuit, was said to have bought Manhattan Island from the Indians for \$24 worth of beads, buttons and trinkets. In 1664, Great Britain's Duke of York sent a fleet which quietly seized the settlement from the Dutch, without bloodshed, and rechristened the colony in honor of the Duke.

Control of New York passed to the young U. S. at the end of the Revolutionary War, and George Washington was inaugurated President in New York's old City Hall. Congress met in New York from 1785 to 1790.

Today New York is the most populous and wealthy city in the U. S. Much of this growth and prosperity is due to New York Harbor, which is one of the finest, and perhaps the busiest, in the world. The port clears more than 5,000 vessels a year and ships almost half of the entire trade of the U. S. For the visitor, perhaps the best view of New York Harbor is from the top of the Statue of Liberty, which is reached by ferry boats running hourly from the Battery, the southern tip of Manhattan. The statue, presented to the U. S. by France in 1885, is the tallest of modern times—152 feet high on a pedestal 151 feet high. An elevator runs to the balcony level, and a spiral stairway leads to the observation platform. Another way to see the harbor and New York's skyline is to take the 40-mile boat trip around Manhattan.

In lower Manhattan, not far from the Battery, is Wall Street, the financial center of the nation. It was so named from the wall constructed nearly 300 years ago by the Dutch burghers to protect themselves against Indian raids. The New York Stock Exchange admits visitors. By way of contrast, New York's Chinatown, within walking distance of Wall Street to the north, has intriguing things to buy and restaurants with delicious things to eat.

Midtown Manhattan has Broadway, otherwise known as the "Main Stem," or "The Great White Way." More stage plays and motion-picture theaters are crowded in that area than in any comparable area in the world. Also night clubs.

Among the most noteworthy buildings, or clusters of buildings, in Midtown Manhattan are:

(1) The Empire State Building, the world's tallest structure, 1,250 feet high. Some half million tourists visit the building every year and shoot up in elevators to the observation tower on the 102d floor.

(2) Rockefeller Center—also known as Radio City. It occupies 12 acres and includes 15 buildings. The studios of the National Broadcasting Company can be inspected in tours that start every twenty minutes. The RCA Building has an observation roof.

(3) United Nations Headquarters, which is located on the East River at 42nd Street.

The many museums of New York City are listed in a separate section (See Museums in the index). The most celebrated is the Metropolitan Museum of Art, one of the world's most famous. On the outskirts of New York City are two of the largest airfields in the world: La Guardia Field and Idlewild. La Guardia Field covers an area of 558 acres, and has observation decks from which one can watch the arrival and departure of domestic and overseas planes, 24 hours a day.

OKLAHOMA CITY, OKLA.

Incorporated as city: 1890.
 Mayor: Allen Street (Apr., 1955).
 City Manager: Ross Taylor.
 1940 population & (rank): 204,424 (42).
 1950 population & (rank): 243,504 (45).
 1940-50 population change: +19.1%.
 1952 area: Land, 55.41 sq. mi.; inland water, 0.
 Altitude: Highest, 1,100 ft.; lowest, 1,070.
 Location: In central part of state, on North Canadian River.
 County: Seat of Oklahoma Co.
 Churches: Protestant, about 280; Roman Catholic, 13; Jewish, 2; others, 5.
 City-owned parks: 72 (9,883 ac.).
 Telephones: 132,119.
 Radio stations: AM, 8; FM, 1.
 Television stations: 1.
 Assessed valuation (1951-52): \$228,315,213.
 City tax rate (1950): \$12.782 per \$1,000.
 Bonded debt (1950): \$18,918,000.
 Revenue (1950): \$8,784,230.64.
 Expenditure (1950): \$7,935,758.79.

More than two thousand oil wells are located within the limits of Oklahoma City or close by, some of them more than a mile deep. The quest for oil knew no forbidden territory: there are derricks in residential districts and even on the grounds of the state capitol.

Oklahoma City sprang into being almost overnight. In 1889, the government threw open this territory for settlement, and there was a classic rush across the line to stake claims. Within a short time, Oklahoma City was a bustling town of 10,000.

The city now ranks as one of the dozen primary livestock markets in the country. Packing plants and flour mills are among the 600 manufacturing concerns. The city is also an important aviation center, with Tinker Field as an Air Force materiel depot. There are six privately owned airports in the area surrounding Oklahoma City.

PHILADELPHIA, PA.

First charter as city: 1701.

Mayor: Joseph Sill Clark, Jr. (Jan., 1956)

1940 population & (rank): 1,931,334 (3).

1950 population & (rank): 2,071,605 (3).

1940-50 population change: +7.3%.

1940 area: Land, 127.2 sq. mi.; inland water, 7.8.

Altitude: Highest, 440 ft.; lowest, sea level.

Location: In SE part of state, at junction of Schuylkill and Delaware Rivers.

County: Seat of Philadelphia Co.

City-owned parks: 35 (7,499.19 ac.).

Radio stations: AM, 10; FM, 8.

Television stations: 3.

Assessed valuation (1952): \$3,219,187,057.

City tax rate (1950): \$2.975 per \$100.

Net bonded debt (1951): \$437,323,883.

Revenue (1951): \$139,037,538.

Expenditure (1951): \$138,151,530.

Philadelphia, the "City of Brotherly Love," was settled in 1681 by Capt. William Markham, who, with a small band of colonists, was sent out by William Penn. Penn arrived the following year, and it was he who laid out the city and gave it its name.

In the period before the American Revolution, the city out-stripped all others in the colonies in education, arts, science, industry and commerce. In 1774-76, the First and Second Continental Congresses met in Philadelphia; and from 1781-83, the city was the capital of the U. S. under the Articles of Confederation. In 1790, it became the nation's capital under the Constitution and remained so until the seat of the federal government moved to Washington in 1800.

Today, Philadelphia is the third largest city in the U. S. and one of the great industrial cities of the world, turning out such products as textiles, steel, radios, ships, street cars and many others. Over half the surgical instruments manufactured in the U. S. come from Philadelphia; and the Baldwin Locomotive Plant, largest in the world, is at Eddystone, on the outskirts of the city.

Philadelphia abounds in landmarks of early American history, including Independence Hall, where the famous Liberty Bell is located, and adjacent Congress Hall, where George Washington was inaugurated for his second term.

Among more recent structures is the City Hall, which is 547 feet in height and is surmounted by a 37-foot bronze statue of William Penn created by Alexander Milne Calder. The building is the tallest in the city and, with its courtyard, occupies an area of 4½ acres.

Philadelphia's U. S. Mint, established in 1792, was the first in the country.

PITTSBURGH, PA.

Incorporated as city: 1816.

Mayor: David L. Lawrence (Jan., 1954).

1940 population & (rank): 671,659 (10).

1950 population & (rank): 676,806 (12).

1940-50 population change: +0.8%.

1951 area: Land, 55.23 sq. mi.; inland water, 3.0.

Altitude: Highest, 1,240 ft.; lowest, 715.

Location: In SW part of state, at junction of Allegheny and Monongahela Rivers to form Ohio River.

County: Seat of Allegheny Co.

Churches: Protestant, 778; Roman Catholic, 204; Jewish, 8.

City-owned parks: 20; 7 parklets (1,970 ac.).

Telephones (1952): 425,089.

Radio sets (1952): 200,000.

Television sets (1952): 465,000.

Radio stations: AM, 7; FM, 7.

Television stations: 1.

Assessed valuation (1951): Land, \$409,837,170; buildings, \$618,976,086.

City tax rate (1951): Land, \$28 per \$1,000; buildings, \$14 per \$1,000.

Bonded debt (1951): \$57,356,238.90.

Revenue (1951): \$36,238,341.04.

Expenditure (1951): \$34,490,749.38.

No other city in the world produces so much iron and steel as does Pittsburgh. The territory within 30 miles of the courthouse produces one-fifth of the nation's pig iron, one-fourth of its steel and one-fifth of its glass. No other city in the world produces so much aluminum. As though this were not enough, Pittsburgh has the largest cork-manufacturing plant and the largest pickling and preserving business in the world.

A detachment of troops from Virginia put a fort on the site of present Pittsburgh in 1754, considering it a strategic spot. Following the original Virginia settlers, the French seized the spot; and in 1758, the British took it away from the French. The British built a new fort and named it after William Pitt.

Pittsburgh's largest park is Schenley Park, of 422 acres, which is the home of Carnegie Tech and Phipps Conservatory. The Department of Fine Arts of the Carnegie Institute holds a yearly international exhibition of paintings. The Carnegie Museum contains some 5 million objects pertaining to natural sciences, ethnology and the useful arts.

Two flower shows are held annually at Phipps Conservatory and are considered the finest display of their kind in the U. S.

PORTLAND, OREG.

Incorporated as city: 1851.

Mayor: Fred L. Peterson (Jan., 1957).

1940 population & (rank): 305,394 (27).

1950 population & (rank): 373,628 (29).

1940-50 population change: +22.3%.

1950 area: Land, 69.5 sq. mi.; inland water, 3.4.

Altitude: Highest, 1,073 ft.; lowest, sea level.

Location: In NW part of state, on Willamette River.

County: Seat of Multnomah Co.

Churches: Protestant, 400; Roman Catholic, 37; Jewish, 10; Buddhist, 2.

City-owned parks: 111 (3,550 ac.).
 Telephones: 206,352.
 Radio stations: AM, 8; FM, 5.
 Television stations: None
 Assessed valuation (1951-52): \$548,236,135.
 City tax rate (1951-52): \$17.20 per \$1,000.
 Bonded debt (June 30, 1952): \$18,839,625.65.
 Revenue (1951-52): \$22,275,604.92.
 Expenditure (1951-52): \$23,496,596.27.

Portland has a background of snow-capped mountains to the north and east. Mount Hood rises 11,245 feet above sea level, and is visible for great distances throughout Oregon. Because of the Japan Current, however, Portland itself has a mild climate.

So equable is the city's weather that climbing roses run rampant over fences and houses and sometimes even telephone poles. Portland holds a famous Rose Festival each year in June. Reflecting the diverse interests of the region, there takes place in October the Pacific International Livestock Exposition, including a horse show and rodeo.

Lewis and Clark sailed past the site of Portland in 1805, on an expedition across the continent for which Congress had appropriated \$2,500. They had started up the Missouri in the spring of 1804, and they reached the mouth of the Columbia River in canoes on Nov. 11, 1805. They built a fort near the present site of Astoria. From there up to Portland, the Columbia is wide and placid. At Portland the Willamette flows into the Columbia, which from that point east begins to flow through higher and higher bluffs up to the famous Columbia River Gorge. A dozen beautiful waterfalls drop hundreds of feet over the solid rock walls on the Oregon side of the gorge.

The great new aluminum plants and shipyards in the Portland area are among a large group of major industries founded in the Northwest following the completion of the great Bonneville Dam on the Columbia River.

PROVIDENCE, R. I.

Incorporated as city: 1832.
 Mayor: Walter H. Reynolds (Jan., 1955).
 1940 population & (rank): 253,504 (37).
 1950 population & (rank): 248,674 (43).
 1940-50 population change: -1.9%.
 1940 area: Land, 17.9 sq. mi.; inland water, 1.0.
 Altitude: Highest, 253 ft.; lowest, sea level.
 Location: In northern part of state, at head of Providence River (north arm of Narragansett Bay).
 County: Seat of Providence Co.
 Churches: Protestant, 94; Roman Catholic, 31.
 City-owned parks: 33 (815 ac.).
 Radio stations: AM, 7; FM, 6.
 Television stations: 1.
 City tax rate (1951): \$29.40 per \$1,000.
 Net bonded debt (1951 est.): \$45,025,239.
 Revenue (1952 budget): \$27,599,763.
 Expenditure (1952 budget): \$27,566,989.

Roger Williams was a religious rebel, and he was banished from Massachusetts. In 1636 he founded Providence, which he so named in gratitude "for God's merciful

providence in my distress." Two years later he organized the First Baptist Church "for the worship of God and to hold college commencements in." Brown University to this day holds its commencements in this church.

Roger Williams still is remembered in Providence by a monument overlooking his grave, and by 452-acre Roger Williams Park, nearly one-third of which is a chain of lakes.

Since his time, Providence has become the second largest city in New England. Its early rise was due to its shipping trade, which included slaves, rum and molasses from the West Indies. Today it distributes oil, coal and lumber. Apart from sea trade, Providence has a thriving textile industry manufacturing woollens, worsteds and cottons. The city is also a leading center for jewelry, machine tools, precision instruments and rubber goods.

RICHMOND, VA.

Incorporated as city: 1782.
 Mayor: Dr. Edward E. Haddock (July, 1954).
 City Manager: Sherwood Reeder (apptd. 1948).
 1940 population & (rank): 193,042 (45).
 1950 population & (rank): 230,310 (46).
 1940-50 population change: +19.3%.
 1951 area: Land, 39.89 sq. mi.; inland water, 2.61.
 Altitude: Highest, 312 ft.; lowest, 0.
 Location: In east central part of state, on James River.
 County: Administratively independent.
 Churches: Protestant, 201; Roman Catholic, 13; Jewish, 5; others, 74.
 City-owned parks*: 53 (1,100.29 ac.).
 Radio stations: AM, 6; FM, 4.
 Television stations: 1.
 Assessed valuation (1952, real estate): \$456,861,243.
 City tax rate (1949-50): Real and personal property, \$2.20 per \$100; machinery, \$1 per \$100.
 Bonded debt (1952): \$36,159,302.54.
 Revenue (1952): \$24,598,346.70.
 Expenditure (1952): \$23,348,600.09.
 * Including 35 playgrounds.

In 1609, Capt. John Smith attempted to establish, near the present site of Richmond, a settlement which he called None Such. He was unsuccessful, however, and the land was later bought from Chief Powhatan for the Virginia Company. Richmond was laid out in 1737, became the state capital in 1779.

Today Richmond is one of the leading tobacco markets of the country. It has factories producing not only cigars and cigarettes but also chewing tobacco and snuff. Tobacco is its main industry.

Richmond had two periods of especial historical renown. One was in 1775 when the Virginia Convention met in St. John's Church to discuss the Revolution. George Washington and Thomas Jefferson attended. Patrick Henry made his famous speech in which he said: "I know not what course others may take; but as for me, give me liberty or give me death."

Again, during the Civil War, Richmond came into the historical spotlight. The city was the capital of the Confederacy. One after another, the Northern generals—McClellan, Burnside, Hooker and Meade—failed to take Richmond. Grant finally succeeded, although not by storming the city itself. His siege of Petersburg ended in the downfall of the Confederacy. When Richmond was evacuated, the Confederate Congress ordered the burning of warehouses containing tobacco and cotton; and the principal business section of the city was destroyed by the spreading flames.

Among the historical buildings which remain in Richmond are the Capitol, which was designed by Thomas Jefferson after the Maison Carrée, an ancient Roman temple at Nîmes, France. In the rotunda is the famous statue of George Washington made from life in 1785 by Jean Antoine Houdon.

ROCHESTER, N. Y.

Incorporated as city: 1834.
 Mayor: Samuel B. Dicker (Dec., 1956).
 City Manager: Louis E. Cartwright (apptd. 1940).
 1940 population & (rank): 324,975 (23).
 1950 population & (rank): 332,488 (32).
 1940-50 population change: +2.3%.
 1940 area: Land, 34.8 sq. mi.; Inland water, 0.5.
 Altitude: Highest, 655 ft.; lowest, 246 ft.
 Location: In west part of state, on Genesee River.
 County: Seat of Monroe Co.
 Churches: Protestant, 128; Roman Catholic, 38; Jewish, 19; others, 22.
 City-owned parks: 23 (1,880 ac.).
 Telephones: 160,941.
 Radio sets: 300,000.
 Television sets: 102,250.
 Radio stations: AM, 6; FM, 2.
 Television stations: 1.
 Assessed valuation (1952): \$602,735,187.
 City tax rate (1952): \$31.20 per \$1,000.
 Bonded debt (Dec. 31, 1951): \$13,623,000.
 Revenue (1951): \$36,897,588.
 Expenditure (1951): \$36,421,655.

Rochester is the mecca of camera enthusiasts. Here is the home of the Eastman Kodak Company, and here is manufactured 90 per cent of the nation's motion-picture film. Tours of the Kodak plants are conducted daily. And at the George Eastman House is a photographic museum in which are exhibitions and demonstrations of picture processes of interest to both amateur and professional photographers.

Rochester also is one of the world's leading centers for the manufacture of optical goods and surgical instruments. The Bausch and Lomb Optical Company and the Taylor Instrument Company are here.

In addition to its factories, Rochester prides itself on its flowers. In the botanical gardens of Highland Park is the world's largest collection of lilacs—403 varieties. When they bloom about the end of May, a Lilac Week celebration is held.

The first permanent white settlement on the site of Rochester appeared in 1812.

ST. LOUIS, MO.

Incorporated as city: 1822.
 Mayor: Joseph M. Darst (Apr., 1953).
 1940 population & (rank): 816,048 (8).
 1950 population & (rank): 856,796 (8).
 1940-50 population change: +5.0%.
 1950 area: Land, 61.0 sq. mi.; inland water, 4.0.
 Altitude: Highest, 605 ft.; lowest, 410 ft.
 Location: On Mississippi River, near its conjunction with Missouri River.
 County: Independent city, not in county.
 Churches: 1,021.
 City-owned parks: 79 (2,839 ac.).
 Telephones: 536,260 (metropolitan area).
 Radio sets: 497,160.
 Television sets: 402,000.
 Radio stations: AM, 10; FM, 4.
 Television stations: 1.
 Assessed valuation: \$1,381,299,862.
 City tax rate: \$2.89 per \$100.
 Bonded debt: \$23,337,000.
 Revenue (1951): \$49,251,580.00.
 Expenditure (1951): \$52,926,407.12.

St. Louis is one of the major industrial centers of the nation. Among its other noteworthy features is that it is the leading beer-producing center of the country. The Anheuser-Busch brewery, largest in the world, is open to visitors. St. Louis also is important in the production of stoves, sugar-mill machinery, steel cars, shoes and meat packing.

The city is one of the oldest settlements in the Mississippi Valley, having been founded in 1764 as a trading post and named after Louis IX of France. It was at St. Louis that "Upper Louisiana" was transferred by France to the U. S. in 1804.

South of St. Louis lie the Ozark Mountains, one of the outstanding playgrounds of the mid-continent. The Ozarks country is a region of rugged, wooded hills, deep valleys and swift streams, many of which provide excellent fishing. The Ozark ridges extend into Arkansas and Oklahoma.

SALT LAKE CITY, UTAH

Incorporated as city: 1851.
 Mayor: Earl J. Glade (Jan., 1956).
 1940 population & (rank): 149,934 (57).
 1950 population & (rank): 182,121 (52).
 1940-50 population change: +21.5%.
 1950 area: Land, 54.872 sq. mi.; inland water, 0.
 Altitude: 4,255 ft.
 Location: In northern part of state, on Jordan River, near Great Salt Lake.
 County: Seat of Salt Lake Co.
 Churches: Mormon, 135; Roman Catholic, 8; Jewish, 4; others, 38.
 City-owned parks: 20 (1,134 ac.).
 Telephones: 86,500.
 Radio sets: 53,000.
 Television sets: 20,000.
 Radio stations: AM, 5; FM, 3.
 Television stations: 2.
 Assessed valuation (1949): \$187,897,877.
 City tax rate (1949): \$18.75 per \$1,000.
 Bonded debt (1949): \$3,397,000.
 Revenue (1949): \$8,967,593.30.
 Expenditure (1949): \$8,772,556.21.

The Mormons, headed by Brigham Young, founded Salt Lake City in July, 1847, feeling that the soil was good, although dry. They dammed a creek across the site of the present city, and thereby introduced one of the first irrigation projects in America. Other Mormon bands came in, and by 1852 the colony numbered some 15,000.

Troops had to be kept in Salt Lake City for several years because of disagreements between non-Mormons and Mormons. The practice of polygamy was renounced by the Mormon Church in 1890, and Utah received statehood six years later.

Some of Salt Lake City's most interesting edifices are those occupied or inspired by Brigham Young and his family. The Mormon Temple was 40 years in the building (1853-1893), and none but Mormons are permitted to enter. The Mormon Tabernacle, with its great domed roof, seats 3,000 people. The acoustical properties of the building are reputed to be so remarkable that a pin dropped at the organ may be heard from the farthest seat. The organ contains more than 10,500 pipes, and its programs have been heard over nation-wide radio networks. The public is admitted at specified hours.

Sixteen miles from Salt Lake City is Great Salt Lake, an inland sea.

SAN FRANCISCO, CALIF.

Incorporated as city: 1850.

Mayor: Elmer E. Robinson (Jan., 1956).

1940 population & (rank): 634,536 (12).

1950 population & (rank): 775,357 (11).

1940-50 population change: +22.2%.

1940 area: Land, 44.6 sq. mi.; inland water, 48.5.

Altitude: Highest, 900 ft.; lowest, sea level.

Location: Between Pacific Ocean and San Francisco Bay.

County: Coextensive with San Francisco Co. Churches: 353.

City-owned parks: 52.

Telephones (1952): 456,498 (including Presidio).

Radio sets (1952): 261,490.

Television sets (1951-52): 163,674.

Radio stations: AM, 8; FM, 7.

Television stations: 3.

Assessed valuation (1952-53): \$1,825,291,170.

City tax rate (1952-53): \$.57 per \$100.

Bonded debt (July 1, 1952): \$184,713,000.

Revenue (1950-51): \$119,278,094.

Expenditure (1950-51): \$118,090,320.

A narrow arm of land embraces San Francisco Bay, the largest land-locked harbor in the world, and shelters it from the Pacific Ocean. On this arm of land is San Francisco, a city on hills, almost surrounded by water.

In 1776, the Spaniards established a presidio, or military post, on the end of the fabulously beautiful peninsula. In the following year, a little town called Yerba Buena ("Good Herb," because mint grew in abundance) was founded—the origin of the present San Francisco.

When gold was discovered in California in 1848, the city quickly jumped to 10,000, and it experienced turbulent years until

order was established by Vigilance Committees, first in 1851 and again in 1856. Then followed a period of more orderly growth, and the foundations of the great commerce and industry of today were laid.

San Francisco is the outstanding seaport on the Pacific Coast. Its 43 piers and 17 miles of berthing space handle more than 30 million tons of freight a year. It was one of the great shipbuilding centers in World War I, at Mare Island, and again in World War II, in the Henry Kaiser mass-production yards. It remains one of the country's major naval-training centers.

Two of the world's most famous bridges are at San Francisco. One is the Golden Gate Bridge, spanning the strait which is the entrance to the bay. It is the largest single-span suspension bridge in the world, with an over-all length of 8,940 feet. The other bridge connects San Francisco with Oakland across the bay to the east. It is $8\frac{1}{4}$ miles long, including approaches, and $4\frac{1}{2}$ miles of it is over navigable water.

San Francisco has the only municipally owned opera house in America. It is one of the buildings in the Civic Center, which occupies more than three square blocks. In 1945, the Civic Center was the scene of the international conference that drew up the Charter for the U. N. and was also the site of the signing of the Japanese peace treaty.

The largest Chinatown outside the Orient occupies twelve square blocks of San Francisco and has a population of 16,000. Delicious Chinese food is served in its restaurants, fine Chinese products are in its shops, and theatrical stars from Canton and Shanghai appear in its theaters. It has the only Chinese telephone exchange in the U. S.

SEATTLE, WASH.

Incorporated as city: 1869.

Mayor: Allan Pomeroy (June, 1956).

1940 population & (rank): 368,302 (22).

1950 population & (rank): 467,591 (19).

1952 est. population: 477,930.

1940-50 population change: +27.0%.

1940 area: Land, 68.5 sq. mi.; inland water, 12.2.

Altitude: Highest, 540 ft.; lowest, sea level.

Location: In west central part of state, on Puget Sound.

County: Seat of King Co.

Churches: Protestant, 262; Roman Catholic, 26; Jewish, 7.

City-owned parks: 167 (2,941.66 ac.).

Telephones (1952): 280,266.

Radio sets (1951): 230,512.

Television sets (1952): 69,500.

Radio stations: AM, 9; FM, 3.

Television stations: 1.

Assessed valuation (1951): \$452,763,758.

City tax rate (1951): \$.51.40 per \$1,000.

Bonded debt* (Dec. 31, 1951): \$20,063,000.

Revenue* (1951): \$20,238,788.

Expenditure* (1951): \$20,238,788.

*General; not including city-owned light, water, transit systems.

A city of steep hills, Seattle lies between two bodies of water—Puget Sound on the

west and Lake Washington on the east. The fine landlocked harbor has made Seattle one of the major ports of the U. S., with docks accommodating 120 seagoing vessels at one time. Shipping routes to the Orient and Alaska are the most important.

Washington leads the nation in sea foods, and Seattle reflects that supremacy by being the largest halibut port in the world. Of the entire season's catch of cod, more than half is salted and shipped inland. Canned salmon also is a big item in Seattle's industry.

Huge log rafts of fir and red cedar move out of Seattle for the lumber markets. The city's home industries include shipyards and the Boeing airplane plant.

From the western side of Seattle, the Olympic Mountains are visible across Puget Sound. On the east are the Cascade Mountains. To the south is snow-capped Mt. Rainier, and to the north is Mt. Baker.

SYRACUSE, N. Y.

Incorporated as city: 1848.

Mayor: Thomas J. Corcoran (Dec., 1953).

1940 population & (rank): 205,967 (41).

1950 population & (rank): 220,583 (47).

1940-50 population change: +7.1%.

1940 area: Land, 25.3 sq. mi.; inland water, 0.4.

Altitude: Highest, 840 ft.; lowest, 363.

Location: Central part of state, near Oneida Lake.

County: Seat of Onondaga Co.

Churches: Protestant, 76; Roman Catholic, 23; Jewish, 8; others, 8.

City-owned parks: 173 (2,158 ac.).

Telephones: 109,962.

Radio stations: AM, 5; FM, 2.

Television stations: 2.

Assessed valuation (1953): Real estate, \$374,984,018; special franchise, \$17,114,971.

City tax rate: \$29.497 per \$1,000.

Bonded debt (Dec. 31, 1953): \$3,462,500 (includes \$2,171,500 self-liquidating water bonds).

Syracuse, the Hub of the Empire State, is 47th in rank among U. S. cities, with 1950 population of 220,583. It is the county seat of Onondaga County, population 340,719.

Settlers were attracted to Onondaga after the Revolution by opening of the salt springs there under state control. Pere Simon LeMoyne, French Jesuit, guided by Indians, discovered the salt in 1654. This was the seat of the Iroquois Confederacy, with the Long House kept at Onondaga. The Onondaga Indian Reservation is just south of the city.

The old Salt City, Syracuse, developed from a union of the village Syracuse with Salina, on the lake. The city was chartered in 1848. The site was opened in 1804 and the village chartered in 1825, the year of the opening of the old Erie Canal.

Judge Joshua Fioneer and James Geddes, engineer and salt pioneer, fostered the canal. Geddes proposed it in the legislature and surveyed the route. The city has a harbor on the Barge Canal today.

Industry employing 60,000 is diversified.

Electronics, electrical machinery, air conditioning equipment, tool steel, typewriters, washing machines, chinaware, laundry and dry-cleaning equipment, auto gears, transmission and differentials, automotive accessories, components and parts, and the chemical industry employ respectively several thousand to 10,000 each.

The seat of the New York State Fair, the city is also the seat of Syracuse University with the New York State College of Medicine and State College of Forestry, and LeMoyne College, Jesuit liberal arts college. The National Ceramic Show is conducted in the city museum. The Intercollegiate Regatta is rowed on Onondaga Lake. The municipal airport with runways up to 8,500 feet has the second highest passenger and freight traffic in the state, outside the metropolis. Ottawa-Washington and east-west routes cross here.

WASHINGTON, D. C.

For District of Columbia, see p. 75.

HONOLULU, HAWAII

Established as city: 1816.

Mayor: John H. Wilson (Jan., 1955).

1940 population: 179,326.

1950 population: 248,034.

Location: On south coast of Oahu island.

County: Seat of Honolulu Co.

Assessed valuation (1952): \$479,261,822.

City tax rate (1952): \$17.31 per \$1,000.

Revenue (1952 est.): \$22,598,859.

Expenditure (1952 est.): \$21,850,000.

Honolulu's early history was one of turbulence and conflict. One of the last areas on the globe to be discovered and exploited, Hawaii was subject to strong pressures from every world power, from American missionaries who arrived in 1820, and from the opportunism of whalers. These whalers built Honolulu originally, bringing trade, commerce and prosperity that led to expansion into the present basic industries of sugar and pineapple. During whaling's golden era (1852-1859), an average of 484 ships wintered each year in Honolulu harbor.

As early as 1814, Russia tried to move in, and the city's downtown shopping area now centers around Fort St., which takes its name from the bastion Russian soldiers built at the harbor's edge. The British flag was raised in 1843 and French forces occupied Honolulu in 1849. Each time control was given back to the independent kingdom without bloodshed. In 1898, a group of Americans completed a project attempted at intervals during the previous 65 years—annexation to the U. S.

Modern Honolulu is a center of Pacific communications and its airport, since the start of the Korean War, has ranked with the world's largest from the point of view of traffic. Oahu is the scene of important defense installations, famed Pearl Harbor and Schofield barracks, but its relation with the U. S. government is not one-sided. Hawaii taxpayers pay in excess of \$100,000,000 a year in federal taxes, a factor that weighs strongly in their continued plea for statehood and a voice as to how this money shall be spent.

Tabulated Data on City Governments

Source: Questionnaires to the cities.

City	MAYOR		City manager's salary ^{1,2}	COUNCIL OR COMMISSION			
	Term, years	Salary ¹		Name	Members	Term, years	Salary ¹
Atlanta, Ga.....	4	\$16,000	.....	Council	17	4	\$ 200 ³
Baltimore, Md.....	4	15,000	.....	Council	21	4	4,000
Birmingham, Ala.....	4	8,600	.....	Commission	2	4	7,600
Boston, Mass.....	4	20,000	.....	Council	9	2	5,000
Buffalo, N. Y.....	4	20,000	.....	Council	15	2 ⁴	6,000 ²⁰
Chicago, Ill.....	4	18,000	.....	Council	50	4	5,000 ¹⁴
Cincinnati, Ohio.....	2	7,246	\$25,000	Council	9	2	5,000
Cleveland, Ohio.....	2	15,800	.....	Council	33	2	4,000
Dallas, Tex.....	2	20 ⁵	20,000	Council	9	2	20 ⁵
Denver, Colo.....	4	14,000	.....	Council	9	4	3,000 ¹⁰
Des Moines, Iowa.....	4	300	20,000	Council	5	4 ⁶	300
Detroit, Mich.....	2 ¹⁵	25,000	.....	Council	9	2 ¹⁵	5,000
Hartford, Conn.....	2	None	18,500	Council	9	2	None
Honolulu, Hawaii.....	2	.....	.....	Bd. of Superv.	7	2	.....
Houston, Tex.....	2	20,000	.....	Council	8	2	300 ⁷
Indianapolis, Ind.....	4	12,000	.....	Council	9	4	1,200
Jersey City, N. J.....	4	8,000	.....	Commission	5	4	7,500
Los Angeles, Calif.....	4	18,000	.....	Council	15	2	7,200
Memphis, Tenn.....	4	15,500	.....	Commission	5	4	7,200 ²¹
Miami, Fla.....	2	5,000	25,000	Commission	5	4	5,000
Milwaukee, Wis.....	4	13,975	.....	Council	27	4	5,575
Minneapolis, Minn.....	2	9,000	.....	Council	26 ³	2	4,200
New Orleans, La.....	4	12,000	.....	Commission	8	4	7,500
New York, N. Y.....	4	40,000	.....	Council	25	4	7,000
Newark, N. J.....	4	11,000	.....	Commission	5 ¹²	4	10,000 ¹³
Oklahoma City, Okla.....	4	1,000	15,000	Council	8	4	10 ⁶
Philadelphia, Pa.....	4	25,000	.....	Council	17	4	9,000 ⁹
Pittsburgh, Pa.....	4	15,000 ¹⁴	.....	Council	9	4	8,000 ¹⁷
Portland, Ore.....	4	6,000	.....	Commission	5	4	5,000
Providence, R. I.....	2	15,000	.....	Council	26	2	1,500
Richmond, Va.....	2	1,200	20,000	Council	9	2	1,200
Rochester, N. Y.....	2	3,000	15,000	Council	9	4	2,000
St. Louis, Mo.....	4	10,000	.....	Council	29	4	3,000 ¹¹
Salt Lake City, Utah.....	4	6,000	.....	Commission	5	4	5,000
San Francisco, Calif.....	4	20,000	.....	Council	11	4	2,400
Seattle, Wash.....	4	12,000	.....	Council	9	4	7,200
Spokane, Wash.....	4	5,000	.....	Commission	5	4	5,000
Syracuse, N. Y.....	4	15,000	.....	Council	10	2 ¹⁴	2,500 ¹⁹
Tulsa, Okla.....	2	8,200	.....	Commission	4	2	6,000
Wichita, Kans.....	1	360	12,500	Commission	5	4	360

¹ Annual, unless otherwise indicated. ² City Manager's term is indefinite and at will of Council. ³ Per month. ⁴ For 9 District Councilmen; 4 years for 5 Councilmen-at-large. ⁵ Per Council meeting. ⁶ For 3 members; 2 years for 2 members. ⁷ Per month part-time. ⁸ Until July 1, 1953; then 13. ⁹ President receives \$10,000. ¹⁰ President receives \$4,000. ¹¹ President receives \$5,000. ¹² Including mayor. ¹³ Although blanket raise was passed effective Jan. 1, 1951, 2 members would not accept it and still receive \$7,500. ¹⁴ Chairman of Finance Committee receives \$3,500 additional. ¹⁵ 4-year term starting Jan. 1, 1954. ¹⁶ \$20,000 starting Jan. 1, 1954. ¹⁷ For 5 Councilmen; 4 receive \$10,000. After Jan. 1, 1954, all Councilmen to receive \$10,000. ¹⁸ For 5 District Councilmen; 4 years for 4 Councilmen-at-large and President. ¹⁹ President receives \$3,500. ²⁰ President receives \$12,000. ²¹ Vice-Mayor, who is Commissioner of Fire and Police, has salary of \$8,400.

Tabulated Data on State Governments

Source: Questionnaires to the states.

State	GOVERNOR		LEGISLATURE ¹					HIGHEST COURT ²		
	Term	Annual salary	Membership U ³ L ⁴	Term U ³ L ⁴	Salaries of members ⁵		Members	Term	Annual salary	
Alabama.....	4 ⁶	\$12,000	35 105	4 4	\$ 20 per diem		7	6	\$12,000	
Arizona.....	2	10,000	19 72	2 2	8 per diem		5	6	8,500	
Arkansas.....	2 ⁷	10,000	35 100	4 2	1,200 per biennium		7	8	9,000	
California.....	4	25,000	40 80	4 2	3,600 per annum		7	12	19,000 ²⁸	
Colorado.....	2	10,000	35 65	4 2	100 per month		7	10	6,500 ²⁹	
Connecticut.....	4	12,000	36 277	2 2	600 per term		5	8	15,000 ³⁰	
Delaware.....	4	12,000	17 35	4 2	1,077 per annum		3	12	17,000 ³¹	
Florida.....	4 ⁶	12,000	38 95	4 2	10 per diem		7	6	12,500	
Georgia.....	4 ⁶	12,000	54 205	2 2	15 per diem		7	6	8,000	
Idaho.....	4 ⁶	7,500	44 59	2 2	10 per diem		4	6	7,500	
Illinois.....	4	12,000	51 153	4 2	5,000 per annum		7	9	20,000	
Indiana.....	4 ⁶	15,000	50 100	4 2	1,200 per annum		5	6	13,500	
Iowa.....	2	12,000	50 108	4 2	2,000 per session		9	6	10,000	
Kansas.....	2	10,000	40 125	4 2	5 per diem		7	6	10,000	
Kentucky.....	4 ⁶	10,000	38 100	4 2	25 per diem		7	8	9,000	
Louisiana.....	4 ⁶	18,000	39 101	4 4	30 per diem		7	14	18,000	
Maine.....	2	10,000	33 151	2 2	850 per session		6	7	11,000 ³²	
Maryland.....	4 ³	4,500	29 123	4 4	1,800 per annum		5	15	16,500 ³³	
Massachusetts.....	2	20,000	40 240	2 2	3,750 per annum		7	Life	17,000	
Michigan.....	2	22,500	32 100	2 2	2,400 per annum		8	8	15,000	
Minnesota.....	2	15,000	67 131	4 2	3,000 per session ³⁴		7	6	13,500 ³⁵	
Mississippi.....	4 ⁶	15,000	49 140	4 4	2,000 per session ³⁶		9	8	11,000	
Missouri.....	4 ⁶	10,000	34 157	4 2	1,500 per annum		7	12	12,000	
Montana.....	4	10,000	56 90	4 2	10 per diem		5	6	9,000	
Nebraska.....	2	11,000	43 ³⁷ 211		872 per annum		7	6	9,100	
Nevada.....	4	9,100	17 47	4 2	15 per diem		2	6	10,000	
New Hampshire.....	2	10,800	24 (1 ³⁸)	2 2	200 per biennium		5	(1 ³⁹)	9,500	
New Jersey.....	4 ³	20,000	21 60	4 2	3,000 per annum		7	7	24,000 ⁴⁰	
New Mexico.....	2 ⁸	15,000	24 49	4 2	10 per diem		5	8	8,000	
New York.....	4	25,000	56 150	2 2	5,000 per annum		7	14	32,500	
North Carolina.....	4 ⁶	15,000	50 120	2 2	15 per diem ⁴¹		7	8	14,400	
North Dakota.....	2	9,000	49 113	4 2	5 per diem		5	10	7,500	
Ohio.....	2	20,000	33 135	2 2	3,200 per annum		7	6	16,000	
Oklahoma.....	4 ⁶	15,000	44 (4 ⁴²)	4 2	15 per diem ⁴³		9	6	12,500	
Oregon.....	4 ³	11,000	30 60	4 2	600 per annum		7	6	10,450	
Pennsylvania.....	4 ⁶	25,000	50 208	4 2	3,000 per session		7	21	25,500 ⁴⁴	
Rhode Island.....	2	15,000	44 100	2 2	5 per diem ⁴⁵		5	(20 ⁴⁶)	17,000 ⁴⁷	
South Carolina.....	4 ⁶	12,000	46 124	4 2	1,000 per session		5	10	10,000	
South Dakota.....	2 ⁸	9,100	35 75	2 2	1,050 per biennium		5	6	7,200	
Tennessee.....	2 ⁴¹	12,000	33 99	2 2	4 per diem ⁴⁸		5	8	12,000	
Texas.....	2	12,000	31 150	4 2	10 per diem ⁴⁹		9	6	15,000	
Utah.....	4	7,500	23 60	4 2	500 per annum		5	10	7,200	
Vermont.....	2	10,000	30 248	2 2	1,000 per session		5	2	9,500	
Virginia.....	4 ⁶	15,000	40 100	4 2	1,080 per session ⁵⁰		7	12	12,000 ⁵¹	
Washington.....	4	15,000	46 99	4 2	1,200 per annum		9	6	12,000	
West Virginia.....	4 ⁶	12,500	32 94	4 2	500 per annum		5	12	12,500	
Wisconsin.....	2	14,000	33 100	4 2	200 per month		7	10	12,000 ⁵²	
Wyoming.....	4	10,000	27 56	4 2	12 per diem		3	8	8,000	

¹ Known as General Assembly in Arkansas, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kentucky, Maryland, Missouri, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia; Legislative Assembly in Montana, North Dakota, Oregon; General Court in Massachusetts, New Hampshire; Legislature in other states. Meets annually in California, Maryland, Massachusetts, New Jersey, New York, Rhode Island, South Carolina; biennially in other states. ² Known as Court of Appeals in Kentucky, Maryland, New York, Supreme Court of Appeals in Virginia, West Virginia; Supreme Judicial Court in Maine, Massachusetts; Supreme Court of Errors in Connecticut; Supreme Court in other states. ³ Upper house; known as Senate in all states. ⁴ Lower house; known as Assembly in California, Nevada, New York, Wisconsin; House of Delegates in Maryland, Virginia, West Virginia; House of Assembly in New Jersey; House of Representatives in other states. ⁵ Does not include additional payment for expenses, mileage, etc. ⁶ Cannot succeed himself. ⁷ Constitutional amendment being voted on Nov. 7, 1950, for 4-year term and prohibition of second consecutive term. ⁸ May not serve a third consecutive term. ⁹ Chief Justice, \$26,000. ¹⁰ Chief Justice, \$15,500. ¹¹ Unicameral legislature. ¹² Chief Justice, \$25,000. ¹³ Varies from 350 to 400. ¹⁴ Until 70 years old. ¹⁵ Chief Justice, \$17,500. ¹⁶ Varies from 119 to 123. ¹⁷ During session; \$100 per month when not in session. ¹⁸ Chief Justice, \$13,500. ¹⁹ For 60 days only. ²⁰ Term of good behavior. ²¹ May not serve a fourth consecutive term. ²² For 75 days only. ²³ For first 120 days; \$5 per diem thereafter. ²⁴ House; Senate, \$6,000. ²⁵ Chief Justice, \$20,500. ²⁶ For those elected before 1948; \$7,500 for those elected since 1948; \$8,500 for those elected after 1952 or appointed by governor since enactment of higher salary. ²⁷ Chief Justice, \$17,500. ²⁸ Chief Justice, \$12,500. ²⁹ Chief Justice, \$12,000. ³⁰ Chief Justice, \$14,500. ³¹ For 90 only.

Mileages Between U. S. Cities

(Bold-face figures are air mileages; light-face figures are road mileages.)

Cities	Birmingham	Boston	Buffalo	Chicago	Cleveland	Dallas	Denver
Birmingham, Ala. ....	....	1,205	930	680	740	655	1,315
Boston, Mass.	1,053	....	460	990	650	1,850	2,000
Buffalo, N. Y.	791	394	....	530	190	1,400	1,550
Chicago, Ill.	574	868	468	....	340	960	1,020
Cleveland, Ohio	630	561	191	307	....	1,210	1,360
Dallas, Tex.	608	1,565	1,263	795	921	....	780
Denver, Colo.	1,143	1,767	1,377	909	1,216	682	....
Detroit, Mich.	638	641	250	219	105	980	1,126
El Paso, Tex.	1,171	2,128	1,710	1,256	1,514	563	565
Houston, Tex.	625	1,613	1,330	943	1,139	241	923
Indianapolis, Ind.	428	821	452	162	261	777	1,011
Kansas City, Mo.	591	1,273	873	405	712	452	552
Los Angeles, Calif.	1,853	2,619	2,219	1,751	2,058	1,245	849
Louisville, Ky.	329	835	496	271	305	774	1,036
Memphis, Tenn.	212	1,161	844	508	653	423	931
Miami, Fla.	665	1,284	1,237	1,186	1,091	1,130	1,812
New Orleans, La.	322	1,369	1,113	858	952	437	1,119
New York, N. Y.	869	184	292	724	418	1,381	1,633
Oklahoma City, Okla.	688	1,513	1,141	692	950	181	501
Pittsburgh, Pa.	602	483	189	420	124	1,115	1,329
Portland, Ore.	2,129	2,608	2,217	1,798	2,071	1,668	986
St. Louis, Mo.	451	1,049	679	251	488	547	781
Salt Lake City, Utah	1,523	2,126	1,726	1,258	1,565	1,062	380
San Francisco, Calif.	2,073	2,724	2,324	1,866	2,163	1,531	956
Seattle, Wash.	2,165	2,559	2,168	1,749	2,022	1,704	1,022
Washington, D. C.	654	399	353	600	310	1,183	1,500
Raleigh, N. C.	490	616	581	676	466	1,067	1,467
Montreal, Canada	1,124	254	333	807	524	1,532	1,716

Cities	Detroit	El Paso	Houston	Indianapolis	Kansas City	Los Angeles	Louisville
Birmingham, Ala.	755	1,290	675	510	715	2,085	895
Boston, Mass.	720	2,415	1,895	930	1,415	3,085	970
Buffalo, N. Y.	260	1,970	1,505	500	985	2,640	540
Chicago, Ill.	280	1,530	1,100	190	510	2,120	305
Cleveland, Ohio	170	1,780	1,330	305	790	2,415	350
Dallas, Tex.	1,190	615	245	910	510	1,425	865
Denver, Colo.	1,315	700	1,035	1,070	620	1,170	1,145
Detroit, Mich. ....	....	1,755	1,300	275	740	2,400	360
El Paso, Tex.	1,459	....	760	1,480	1,010	805	1,495
Houston, Tex.	1,093	689	....	1,020	765	1,545	980
Indianapolis, Ind.	225	1,256	868	....	485	2,150	115
Kansas City, Mo.	624	837	669	459	....	1,610	520
Los Angeles, Calif.	1,969	712	1,401	1,827	1,368	....	2,175
Louisville, Ky.	313	1,281	838	111	484	1,852	....
Memphis, Tenn.	607	986	486	382	379	1,647	352
Miami, Fla.	1,182	1,685	996	1,030	1,256	2,375	919
New Orleans, La.	959	992	303	734	731	1,682	651
New York, N. Y.	511	1,944	1,429	659	1,104	2,469	669
Oklahoma City, Okla.	895	564	422	692	306	1,186	717
Pittsburgh, Pa.	229	1,594	1,186	338	797	2,165	352
Portland, Ore.	1,967	1,416	1,909	1,960	1,538	838	2,022
St. Louis, Mo.	433	1,026	692	230	229	1,597	255
Salt Lake City, Utah	1,506	784	1,303	1,391	932	591	1,416
San Francisco, Calif.	2,075	998	1,687	1,966	1,507	340	1,991
Seattle, Wash.	1,918	1,478	1,945	1,911	1,574	964	2,058
Washington, D. C.	415	1,746	1,220	498	948	2,331	473
Raleigh, N. C.	571	1,620	1,053	525	915	2,241	431
Montreal, Canada	552	2,011	1,663	777	1,212	2,558	839

Mileages Between U. S. Cities

(Bold-face figures are air mileages; light-face figures are road mileages.)

Cities	Memphis	Miami	New Orleans	New York	Oklahoma City	Pittsburgh	Portland
Birmingham, Ala.	255	780	380	985	735	1,710	2,635
Boston, Mass.	1,355	1,565	1,570	215	1,735	590	3,000
Buffalo, N. Y.	925	1,485	1,290	395	1,285	225	2,540
Chicago, Ill.	545	1,400	945	845	840	470	2,225
Cleveland, Ohio	730	1,335	1,075	500	1,100	125	2,545
Dallas, Tex.	480	1,370	510	1,625	205	1,260	2,110
Denver, Colo.	1,085	2,135	1,290	1,795	605	1,430	1,335
Detroit, Mich.	715	1,380	1,115	650	1,075	285	2,290
El Paso, Tex.	1,105	2,005	1,115	2,205	685	1,840	1,730
Houston, Tex.	575	1,220	365	1,655	450	1,375	2,290
Indianapolis, Ind.	450	1,220	840	720	800	360	2,350
Kansas City, Mo.	475	1,530	875	1,205	360	840	1,930
Los Angeles, Calif.	1,835	2,820	1,920	2,875	1,350	2,510	990
Louisville, Ky.	380	1,080	740	755	825	395	2,445
Memphis, Tenn. ....	.....	1,030	400	1,130	485	775	2,440
Miami, Fla.	877	.....	885	1,340	1,555	1,240	3,450
New Orleans, La.	352	693	.....	1,340	690	1,125	2,620
New York, N. Y.	965	1,100	1,185	.....	1,525	370	3,045
Oklahoma City, Okla.	476	1,311	618	1,341	.....	1,155	1,960
Pittsburgh, Pa.	704	1,050	924	320	1,030	.....	2,670
Portland, Ore.	1,917	2,798	2,105	2,408	1,487	2,196	.....
St. Louis, Mo.	257	1,073	607	888	462	568	1,767
Salt Lake City, Utah	1,311	2,192	1,499	1,982	809	1,078	632
San Francisco, Calif.	1,831	2,661	1,990	2,580	1,385	2,276	552
Seattle, Wash.	1,953	2,834	2,141	2,419	1,523	2,147	135
Washington, D. C.	762	922	971	215	1,158	186	2,382
Raleigh, N. C.	634	709	783	432	1,060	414	2,453
Montreal, Canada	1,159	1,424	1,446	325	1,447	522	2,519

Cities	St. Louis	Salt Lake City	San Francisco	Seattle	Washington	Raleigh	Montreal
Birmingham, Ala.	575	1,820	2,425	2,705	755	575	1,315
Boston, Mass.	1,160	2,425	3,190	2,950	435	720	325
Buffalo, N. Y.	730	1,975	2,740	2,480	380	685	385
Chicago, Ill.	295	1,410	2,195	2,120	705	855	865
Cleveland, Ohio	535	1,785	2,550	2,485	365	590	570
Dallas, Tex.	665	1,265	1,785	2,185	1,400	1,260	1,780
Denver, Colo.	875	515	1,270	1,410	1,645	1,755	1,900
Detroit, Mich.	515	1,710	2,475	2,230	525	715	585
El Paso, Tex.	1,230	875	1,210	1,795	2,045	1,895	2,340
Houston, Tex.	805	1,450	1,950	2,365	1,430	1,250	1,885
Indianapolis, Ind.	230	1,560	2,325	2,325	565	665	835
Kansas City, Mo.	250	1,135	1,890	1,925	1,050	1,120	1,320
Los Angeles, Calif.	1,895	740	405	1,180	2,725	2,625	2,985
Louisville, Ky.	270	1,660	2,430	2,465	600	585	920
Memphis, Tenn.	305	1,600	2,175	2,400	905	780	1,275
Miami, Fla.	1,265	2,615	3,160	3,425	1,115	845	1,720
New Orleans, La.	710	1,755	2,295	2,695	1,115	930	1,695
New York, N. Y.	960	2,255	3,020	2,985	230	495	380
Oklahoma City, Okla.	545	1,120	1,690	2,035	1,375	1,265	1,660
Pittsburgh, Pa.	585	1,880	2,645	2,610	235	470	610
Portland, Ore.	2,185	845	680	190	2,900	3,001	2,860
St. Louis, Mo. ....	.....	1,385	2,140	2,175	805	865	1,065
Salt Lake City, Utah	1,161	.....	755	620	2,110	1,075	2,295
San Francisco, Calif.	1,737	600	.....	890	2,875	2,955	3,060
Seattle, Wash.	1,803	694	687	.....	2,845	2,985	2,800
Washington, D. C.	719	1,858	2,456	2,333	.....	270	605
Raleigh, N. C.	686	1,847	2,423	2,489	228	.....	870
Montreal, Canada	983	2,063	2,663	2,470	502	730	.....

Legal Holidays in the United States

Holidays Widely Observed

January 1, New Year's Day: All states, D. C., Alaska, Hawaii, Puerto Rico, Canal Zone, Virgin Islands.

February 12, Lincoln's Birthday: Arizona, California, Colorado, Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Minnesota, Missouri, Montana, Nevada, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Vermont, Washington, West Virginia, Wisconsin, Wyoming, Alaska, Hawaii, Virgin Islands.

February 22, Washington's Birthday: All states (except Florida, Idaho, Nebraska), D. C., Alaska, Hawaii, P. R., C. Z., Virgin Is.

May 30, Memorial (or Decoration) Day: All states (except Alabama, Georgia, Mississippi, South Carolina, Texas), D. C., Alaska, Hawaii, Puerto Rico, C. Z., Virgin Is.

July 4, Independence Day: All states, D. C., Alaska, Hawaii, Puerto Rico, Canal Zone, Virgin Islands.

September (1st Monday), Labor Day: All states (except Nebraska), D. C., Alaska, Hawaii, Puerto Rico, Canal Zone, Virgin Islands.

October 12, Columbus Day: All states (except Arkansas, D. C., Idaho, Iowa, Maine, Mississippi, Nebraska, North Carolina, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee), Puerto Rico.

November (1st Tuesday after 1st Monday), Election Day: Arizona, Arkansas, Colorado, Delaware, Florida, Illinois, Indiana, Iowa, Maryland, Michigan, Missouri, Montana, Nevada, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Alaska, Hawaii, P. R.

November 11, Armistice Day: All states (except Nebraska), D. C., Alaska, Hawaii, Puerto Rico, Canal Zone, Virgin Islands.

November (4th Thursday), Thanksgiving Day: All states, D. C., Alaska, Hawaii, Puerto Rico, Canal Zone, Virgin Islands.

December 25, Christmas: All states, D. C., Alaska, Hawaii, P. R., C. Z., Virgin Is.

Other Holidays

January 6, Three Kings' Day: Puerto Rico.

January 8, Battle of New Orleans: Louisiana.

January 11, De Hostos' Birthday: Puerto Rico.

January 19, Robert E. Lee's Birthday: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia.

January 20, Inauguration Day: D. C., Louisiana (Baton Rouge, only).

January 30, F. D. Roosevelt's Birthday: Kentucky, Hawaii, Virgin Islands.

February or March (1 day before Ash Wednesday), Mardi Gras (Shrove Tuesday): Alabama, Florida (in certain counties), Louisiana (in certain parishes and municipalities).

February 14, Admission Day: Arizona.

March or April (some day between Mar. 1 to Apr. 15), Arbor Day: Utah.

March 2, Texas Independence Day.

March 15, Andrew Jackson's Birthday: Tenn.

March or April (3 days before Easter), Holy Thursday: Virgin Islands.

March or April (2 days before Easter), Good Friday: Connecticut, Delaware, Florida, Illinois, Indiana, Louisiana, Maryland, Minnesota, New Jersey, North Dakota, Pennsylvania, Tennessee, Hawaii, P. R., C. Z.

March or April (1 day after Easter), Easter Monday: North Carolina, Virgin Islands.

March 22, Emancipation Day: Puerto Rico.

March 25, Maryland Day.

March 26, Kuhio Day: Hawaii.

March 30, Transfer Day: Virgin Islands.

March 30, Seward's Day: Alaska.

April 12, Halifax Resolutions Anniversary: N. C.

April 13, Thomas Jefferson's Birthday: Alabama, Missouri, Virginia.

April 16, De Diego's Birthday: Puerto Rico.

April 19, Patriots' Day: Maine, Massachusetts.

April 21, San Jacinto Day: Texas.

April 26, Confederate Memorial Day: Alabama, Florida, Georgia, Mississippi.

April (4th Monday), Fast Day: New Hampshire.

May or June (day after Pentecost), Whit Monday: Virgin Islands.

May 4, Rhode Island Independence Day.

May (2nd Sunday), Mother's Day: Arizona.

May 10, Confederate Memorial Day: North Carolina, South Carolina.

May 20, Mecklenburg Independence Day: North Carolina.

June 3, Jefferson Davis' Birthday: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, South Carolina, Tennessee, Texas, Virginia.

June 11, Kamehameha Day: Hawaii.

June 14, Flag Day: Pennsylvania.

June 20, West Virginia Day.

June (3rd Sunday), Father's Day: Arizona.

June 22, Organic Act Day: Virgin Islands.

July 13, Nathan Bedford Forrest's Birthday: Tennessee.

July 17, Muñoz Rivera's Birthday: Puerto Rico.

July 24, Pioneer Day: Utah.

July 25, Supplication Day: Virgin Islands.

July 25, Constitution Day: Puerto Rico.

July 27, Barbosa's Birthday: Puerto Rico.

August 1, Colorado Day.

August 14, V-J Day: Arkansas, Rhode Island.

August 16, Bennington Battle Day: Vermont.

August 30, Huey P. Long Day: Louisiana.

September 9, Admission Day: Arizona.

September 12, Defenders' Day: Maryland.

October (Thursday of State Fair Week): South Carolina (in counties where Fair is held).

October 18, Alaska Day.

October 25, Local Thanksgiving Day: Virgin Is.

October 31, Admission Day: Nevada.

November 1, Liberty Day: Virgin Islands.

November 3, Panamá Independence Day: Canal Zone.

November 19, Discovery Day: Puerto Rico.

December 26, Day after Christmas: South Carolina, Virgin Islands.

UNITED STATES STATISTICS

Geographic Data

Source: U. S. Geological Survey.

Highest point: Mt. Whitney, Calif.*	14,495 ft.
Lowest point: Death Valley, Calif.*	282 ft. below sea level
Most northern point: Lake of the Woods projection, Minn.	49° 23' 04.5" N. lat.
Most southern point: Cape Sable, Fla.	25° 07' N. lat.
Most eastern point: West Quoddy Head, Maine	66° 57' W. long.
Most western point: Cape Alava, Wash.	124° 44' W. long.
Places farthest apart: Point Arena, Calif., to West Quoddy Head, Maine	2,897 mi.
Geographic center: near Lebanon, Smith County, Kans.	39° 50' N. lat. 98° 35' W. long.
Northern boundary: Canada and Great Lakes	3,987 mi.
Southern boundary: Mexico	2,013 mi.

* The highest and lowest points in the U. S. are 86 mi. apart.

Territorial Expansion of the United States

Accession	Date	Area, sq. mi. ¹
CONTINENTAL UNITED STATES		
Territory in 1790 ²		888,811
Louisiana Purchase	1803	827,192
Florida	1819	58,560
By treaty with Spain	1819	13,443
Texas	1845	390,144
Oregon	1846	285,580
Mexican Cession	1848	529,017
Gadsden Purchase	1853	29,640
Total		3,022,387

OUTLYING TERRITORY³

Alaska Territory	1867	586,400
Hawaii Territory ⁴	1898	6,461
Puerto Rico	1899	3,435
Guam	1899	206
American Samoa	1900	76
Panama Canal Zone	1904	553
Corn Islands ⁵	1914	4
Virgin Islands of U. S.	1917	133
Trust territory ⁵	1947	8,475
Total		605,743
Aggregate, 1950		3,628,130

¹ Total land and water area.

² Includes drainage basin of Red River of the North, not part of any accession, but in the past sometimes considered a part of the Louisiana Purchase.

³ The Philippine Islands, acquired in 1899, became independent on July 4, 1946.

⁴ Includes Baker, Canton, Enderbury, Howland, Jarvis, Johnston, and Midway Islands; also certain other outlying islands.

⁵ Consists of the Marianas, Caroline, and Marshall Islands, formerly held by Japan under mandate.

⁶ Leased from Nicaragua for 99 years.

U. S. Water Area Other Than Inland Water

	Sq. mi.
Atlantic Ocean	2,298
Chesapeake Bay	3,237
Delaware Bay	665
Erie, Lake	5,002
Georgia and Juan de Fuca, Straits of	1,610
Huron, Lake	8,975
Long Island Sound	1,299
Mexico, Gulf of	3,837
Michigan, Lake	22,178
New York Harbor	92
Ontario, Lake	3,033
Pacific Ocean	343
Puget Sound	561
St. Clair, Lake	116
Superior, Lake	21,118
Total	74,364

U. S. Population and Area

Census	Population of continental U. S.	Increase over the preceding census Number Per cent	Land area, sq. mi.	Pop. per sq. mi.
1790...	3,929,214	.....	867,980	4.5
1800...	5,308,483	1,379,269 35.1	867,980	6.1
1810...	7,239,881	1,931,398 36.4	1,685,865	4.3
1820...	9,638,453	2,398,572 33.1	1,753,588	5.5
1830...	12,866,020	3,227,567 33.5	1,753,588	7.3
1840...	17,069,453	4,203,433 32.7	1,753,588	9.7
1850...	23,191,876	6,122,423 35.9	2,944,337	7.9
1860...	31,443,321	8,251,445 35.6	2,97,965	10.6
1870...	39,818,449	8,375,128 26.6	2,973,965	13.4
1880...	50,155,783	10,337,334 26.0	2,973,965	16.9
1890...	62,947,714	12,791,931 25.5	2,973,965	21.2
1900...	75,994,575	13,046,861 20.7	2,974,159	25.6
1910...	91,972,266	15,977,691 21.0	2,973,890	30.9
1920...	105,710,620	13,738,354 14.9	2,973,776	35.5
1930...	122,775,048	17,064,426 16.1	2,977,128	41.2
1940...	131,669,275	8,894,229 7.2	2,977,128	44.2
1950...	150,697,361	19,028,086 14.5	2,974,726	50.7

Sources: U. S. Bureau of the Census.

Highest, Lowest, and Average Altitudes in the United States

Source: U. S. Geological Survey.

State	Average elevation, ft.	Highest point	Elevation, ft.	Lowest point	Elevation, ft.
Alabama	500	Cheaha Mountain	2,407	Gulf of Mexico	Sea level
Arizona	4,100	Humphreys Peak	12,655	Colorado River	100
Arkansas	650	Blue Mountain	2,800	Ouachita River	55
		Magazine Mountain			
California	2,900	Mount Whitney	14,495	Death Valley	282*
Colorado	6,800	Mount Elbert	14,431	Arkansas River	3,350
Connecticut	500	N. Bdy.-Mt. Frissell	2,380	Long Island Sound	Sea level
Delaware	60	Centerville	440	Atlantic Ocean	Sea level
D. C.	150	Tenleytown	420	Potomac River	Sea level
Florida	100	Sec. 30, T6N, R20W	345	Atlantic Ocean	Sea level
Georgia	600	Brasstown Bald	4,784	Atlantic Ocean	Sea level
Idaho	5,000	Borah Peak	12,655	Snake River	720
Illinois	600	Charles Mound	1,241	Mississippi River	279
Indiana	700	Greensfork Township	1,240	Ohio River	320
Iowa	1,100	In Osceola County	1,675	Mississippi River	480
Kansas	2,000	In T15S R43W	4,135	Verdigris River	700
Kentucky	750	Big Black Mountain	4,150	Mississippi River	257
Louisiana	100	Driskill Mountain	535	New Orleans	5*
Maine	600	Mount Katahdin	5,268	Atlantic Ocean	Sea level
Maryland	350	Backbone Mountain	3,360	Atlantic Ocean	Sea level
Massachusetts	500	Mount Greylock	3,491	Atlantic Ocean	Sea level
Michigan	900	Porcupine Mountains	2,023	Lake Erie	572
Minnesota	1,200	Misquah Hills	2,230	Lake Superior	602
Mississippi	300	Woodall Mountain	806	Gulf of Mexico	Sea level
Missouri	800	Taum Sauk Mountain	1,772	St. Francis River	230
Montana	3,400	Granite Peak	12,850	Kootenai River	1,800
Nebraska	2,600	Epworth Township	5,340	Southeast corner of State	840
Nevada	5,500	Boundary Peak, White Mountains	13,145	Colorado River	470
New Hampshire	1,000	Mount Washington	6,288	Atlantic Ocean	Sea level
New Jersey	250	High Point	1,801	Atlantic Ocean	Sea level
New Mexico	5,700	Wheeler Peak	13,151	Red Bluff Reservoir	2,817
New York	1,000	Mount Marcy	5,344	Atlantic Ocean	Sea level
North Carolina	700	Mount Mitchell	6,684	Atlantic Ocean	Sea level
North Dakota	1,900	Black Butte	3,468	Red River	750
Ohio	850	Campbell Hill	1,550	Ohio River	433
Oklahoma	1,300	Black Mesa	4,978	Red River	300
Oregon	3,300	Mount Hood	11,245	Pacific Ocean	Sea level
Pennsylvania	500	Mt. Davis, Negro Mountains	3,213	Delaware River	Sea level
Rhode Island	200	Jerimoth Hill	812	Atlantic Ocean	Sea level
South Carolina	350	Sassafras Mountain	3,560	Atlantic Ocean	Sea level
South Dakota	2,200	Harney Peak	7,242	Big Stone Lake	962
Tennessee	900	Clingmans Dome	6,642	Mississippi River	182
Texas	1,700	Guadalupe Peak	8,751	Gulf of Mexico	Sea level
Utah	6,100	Kings Peak	13,498	Beaverdam Creek	2,000
Vermont	1,000	Mount Mansfield	4,393	Lake Champlain	95
Virginia	950	Mount Rogers	5,720	Atlantic Ocean	Sea level
Washington	1,700	Mount Rainier	14,408	Pacific Ocean	Sea level
West Virginia	1,500	Spruce Knob	4,860	Potomac River	240
Wisconsin	1,050	Sugarbush Hill	1,951	Lake Michigan	581
Wyoming	6,700	Gannett Peak	13,785	Belle Fourche River	3,100

* Below sea level.

Forest Resources of the United States

Source: U. S. Forest Service.

United States Forest Land, 1950

(In acres)

Old growth	44,307,000
Second-growth saw timber	154,597,000
Pole timber	104,799,000
Seedling and sapling area	81,076,000
Poorly stocked and denuded area	74,762,000
Total	459,541,000

The forests of the United States include over 800 different kinds of trees and still cover millions of acres. But since the days when half of the United States was forest, the amount of commercial forest land has decreased by about half, and the condition of many of the remaining forests has deteriorated badly, necessitating a forest rehabilitation program.

Mountain Peaks in the U. S. Over 14,000 Feet Above Sea Level

Source: U. S. Geological Survey.

Mountain	State	County	Height, feet
Mt. Whitney	California	Tulare-Inyo	14,495
Mt. Elbert	Colorado	Lake	14,431
Mt. Massive	Colorado	Lake	14,418
Mt. Rainier	Washington	Pierce	14,408
Mt. Harvard	Colorado	Chaffee	14,399
Mt. Williamson	California	Inyo	14,384
La Plata Peak	Colorado	Chaffee	14,340
Blanca Peak	Colorado	Costilla-Huerfano-Alamosa	14,310
Uncompahgre Peak	Colorado	Hinsdale	14,301
Crestone Peak	Colorado	Custer-Saguache	14,291
Mt. Lincoln	Colorado	Park	14,284
Grays Peak	Colorado	Clear Creek-Summit	14,274
Torreys Peak	Colorado	Clear Creek-Summit	14,264
Mt. Evans	Colorado	Clear Creek	14,260
Castle Peak	Colorado	Gunnison-Pitkin	14,259
Longs Peak	Colorado	Boulder	14,255
Quandary Peak	Colorado	Summit	14,252
Mt. Wilson	Colorado	Dolores	14,250
Mt. Antero	Colorado	Chaffee	14,245
North Palisade	California	Fresno	14,242
White Mountain	California	Alpine-Mono	14,242
Mt. Cameron	Colorado	Park	14,238
Mt. Russell	California	Inyo	14,190
Shavano Peak	Colorado	Chaffee	14,179
Mt. Princeton	Colorado	Chaffee	14,177
Mt. Yale	Colorado	Chaffee	14,172
Mt. Bross	Colorado	Park	14,169
Mt. Sill	California	Fresno	14,162
Mt. Shasta	California	Siskiyou	14,161
Maroon Peak	Colorado	Pitkin	14,168
Point Success	Washington	Pierce	14,150
San Luis Peak	Colorado	Saguache	14,149
Mt. Sneffels	Colorado	Ouray	14,143
Mt. Democrat	Colorado	Park-Lake	14,142
Crestone Needle	Colorado	Custer-Saguache	14,130
Old Baldy	Colorado	Costilla	14,125
Liberty Cap	Washington	Pierce	14,112
Pikes Peak	Colorado	El Paso	14,109
Kit Carson Peak	Colorado	Saguache	14,100
Humboldt Peak	Colorado	Custer	14,100
Windom Peak	Colorado	La Plata	14,091
Mt. Eolus	Colorado	La Plata	14,086
Snowmass Mountain	Colorado	Pitkin-Gunnison	14,077
Mt. Columbia	Colorado	Chaffee	14,070
Culebra Peak	Colorado	Costilla-Las Animas	14,069
Sunlight Peak	Colorado	La Plata	14,060
Split Mountain	California	Fresno-Inyo	14,058
Redcloud Peak	Colorado	Hinsdale	14,050
Mt. Bierstadt	Colorado	Clear Creek	14,046
Mt. Langley	California	Tulare	14,042
Middle Palisade	California	Fresno	14,040
Little Bear Peak	Colorado	Costilla	14,040
Mt. Sherman	Colorado	Park-Lake	14,037
Stewart Peak	Colorado	Saguache	14,032
Wilson Peak	Colorado	San Miguel	14,026
Mt. Muir	California	Tulare	14,025
Mt. Tyndall	California	Tulare	14,025
Sunshine Peak	Colorado	Hinsdale	14,018
Wetterhorn Peak	Colorado	Hinsdale-Ouray	14,017
Handies Peak	Colorado	Hinsdale	14,013
North Maroon Peak	Colorado	Pitkin	14,010
Mt. Barnard	California	Tulare-Inyo	14,003
Pyramid Peak	Colorado	Pitkin	14,000

Rivers of the U. S.

(300 or more miles long)

ALABAMA (315 mi.): From junction of Tallapoosa R. and Coosa R. in Alabama to junction with Tombigbee R. to form Mobile R. and Tensaw R.

ALLEGHENY (325 mi.): From Potter Co. in Pennsylvania to junction with Monongahela R. at Pittsburgh to form Ohio R.

ARKANSAS (1,450 mi.): From Lake Co. in Colorado to Mississippi R. in Arkansas.

BIG BLACK (330 mi.): From Webster Co. in Mississippi to Mississippi R.

BIG HORN (336 mi.): From junction of Popo Agie R. and Wind R. in Wyoming to Yellowstone R. in Montana.

BRAZOS (870 mi.): From junction of Salt Fork and Clear Fork in Texas to Gulf of Mexico.

CANADIAN (906 mi.): From Colfax Co. in New Mexico to Arkansas R. in Oklahoma.

CEDAR (329 mi.): From south central Minnesota to Iowa R. in Iowa.

CHATAHOOCHEE (410 mi.): From Towns Co. in Georgia to junction with Flint R. to form Apalachicola R.

CIMARRON (600 mi.): From Colfax Co. in New Mexico to Arkansas R. in Oklahoma.

CLARK FORK (c. 300 mi.): From Silver Bow Co. in Montana to Pend Oreille Lake in Idaho.

COLORADO (1,450 mi.): From Grand Co. in Colorado to Gulf of California in Mexico.

COLORADO (840 mi.): From Dawson Co. in Texas to Matagorda Bay.

COLUMBIA (1,270 mi.): From Columbia Lake in British Columbia to Pacific Ocean between Oregon and Washington.

CONNECTICUT (407 mi.): From Connecticut Lakes in New Hampshire to Long Island Sound in Connecticut.

CUMBERLAND (687 mi.): From junction of forks in Harlan Co. in Kentucky to Ohio R.

DAKOTA (Sometimes called **JAMES**) (710 mi.): From Wells Co. in North Dakota to Missouri R. in South Dakota.

DES MOINES (327 mi.): From junction of forks in Humboldt Co. in Iowa to Mississippi R.

GILA (630 mi.): From southwest New Mexico to Colorado R. in Arizona.

GREEN (360 mi.): From Lincoln Co. in Kentucky to Ohio R. in Indiana.

GREEN (730 mi.): From Sublette Co. in Wyoming to Colorado R. in Utah.

HUDSON (306 mi.): From Essex Co. in New York to Upper New York Bay between New York and New Jersey.

JAMES (340 mi.): From junction of Jackson R. and Cowpasture R. in Virginia to Chesapeake Bay.

LITTLE COLORADO (300 mi.): From Apache Co. in Arizona to Colorado R.

LITTLE MISSOURI (560 mi.): From northeast Wyoming to Missouri R. in North Dakota.

MILK (625 mi.): From Glacier Co. in Montana to Missouri R.

MINNESOTA (332 mi.): From Big Stone Lake between Minnesota and South Dakota to Mississippi R. at St. Paul.

MISSISSIPPI (2,470 mi.): From Lake Itasca in Minnesota to Gulf of Mexico in Louisiana.

MISSOURI (2,475 mi.): From junction of Jefferson R., Madison R., and Gallatin R. in Montana to Mississippi R. near St. Louis.

NEOSHO (460 mi.): From Morris Co. in Kansas to Arkansas R. in Oklahoma.

NIOBRARA (431 mi.): From Niobrara Co. in Wyoming to Missouri R. in Nebraska.

NORTH CANADIAN (760 mi.): From Union Co. in New Mexico to Canadian R. in Oklahoma.

NORTH PLATTE (618 mi.): From Jackson Co. in Colorado to junction with So. Platte R. in Nebraska to form Platte R.

NUECES (338 mi.): From near Edwards-Real Co. border in Texas to Nueces Bay.

OHIO (981 mi.): From junction of Allegheny R. and Monongahela R. at Pittsburgh to Mississippi R. between Illinois and Kentucky.

OSAGE (500 mi.): From junction of Elm Creek and Onion Creek in Kansas to Missouri R. in Missouri.

OUACHITA (605 mi.): From Polk Co. in Arkansas to Black R. in Louisiana.

PEARL (490 mi.): From Neshoba Co. in Mississippi to Gulf of Mexico between Mississippi and Louisiana.

PECOS (735 mi.): From Mora Co. in New Mexico to Rio Grande in Texas.

PLATTE (310 mi.): From junction of North Platte R. and South Platte R. in Nebraska to Missouri below Omaha.

PLATTE (c. 300 mi.): From Union Co. in Iowa to Missouri R. in Missouri.

POWDER (375 mi.): From junction of forks in Johnson Co. in Wyoming to Yellowstone R. in Montana.

RED (1,018 mi.): From junction of forks in Tillman Co. in Oklahoma to Mississippi R. in Louisiana.

RED (Sometimes called **RED RIVER OF THE NORTH**) (545 mi.): From junction of Otter Tail R. and Bois de Sioux R. in Minnesota to Lake Winnipeg in Manitoba.

REPUBLICAN (445 mi.): From eastern Colorado to junction with Smoky Hill R. in Kansas to form Kansas R.

RIO GRANDE (1,800 mi.): From San Juan Co. in Colorado to Gulf of Mexico between Texas and Mexico.

ROANOKE (380 mi.): From junction of forks in Montgomery Co. in Virginia to Albemarle Sound in North Carolina.

ROCK (300 mi.): From Washington Co. in Wisconsin to Mississippi R. in Illinois.

SABINE (380 mi.): From junction of forks in Hunt Co. in Texas to Sabine Lake between Texas and Louisiana.

SACRAMENTO (382 mi.): From Siskiyou Co. in California to Suisun Bay.

SAINT FRANCIS (425 mi.): From Iron Co. in Missouri to Mississippi R. in Arkansas.

SALMON (420 mi.): From Custer Co. in Idaho to Snake R.

SAN JOAQUIN (350 mi.): From junction of forks in Madera Co. in California to Sacramento R.

SAN JUAN (360 mi.): From Archuleta Co. in Colorado to Colorado R. in Utah.

SAVANNAH (314 mi.): From junction of Tugaloo R. and Seneca R. in South Carolina to Atlantic Ocean between Georgia and South Carolina.

SMOKY HILL (540 mi.): From Cheyenne Co. in Colorado to junction with Republican R. in Kansas to form Kansas R.

SNAKE (1,038 mi.): From Yellowstone National Park in Wyoming to Columbia R. in Washington.

SOUTH PLATTE (424 mi.): From Park Co. in Colorado to junction with North Platte R. in Nebraska to form Platte R.

SUSQUEHANNA (444 mi.): From Otsego Co. in New York to Chesapeake Bay in Maryland.

TALLAHATCHIE (301 mi.): From Tippah Co. in Mississippi to junction with Yalobusha R. to form Yazoo R.

TENNESSEE (652 mi.): From junction of forks near Amory, Mississippi, to junction with Alabama R. in Alabama to form Mobile R. and Tensaw R.

TOMBIGBEE (409 mi.): From junction of forks near Amory, Mississippi, to junction with Alabama R. in Alabama to form Mobile R. and Tensaw R.

TRINITY (360): From junction of forks in Kaufman Co. in Texas to Galveston Bay.

WABASH (475 mi.): From Darke Co. in Ohio to Ohio R. between Illinois and Indiana.

WASHITA (500 mi.): From Hemphill Co. in Texas to Red R. in Oklahoma.

WHITE (690 mi.): From Madison Co. in Arkansas to Mississippi R.

WISCONSIN (430 mi.): From Vilas Co. in Wisconsin to Mississippi R.

YELLOWSTONE (671 mi.): From Park Co. in Wyoming to Missouri R. in North Dakota.

Abbreviations of the States

Alabama	Ala.
Arizona	Ariz.
Arkansas	Ark.
California	Calif., Cal.
Colorado	Colo., Col.
Connecticut	Conn., Ct.
Delaware	Del.
District of Columbia	D. C.
Florida	Fla.
Georgia	Ga.
Idaho	(none), Ida., Id.
Illinois	Ill.
Indiana	Ind.
Iowa	(none), Ia.
Kansas	Kans., Kan.
Kentucky	Ky.
Louisiana	La.
Maine	(none), Me.
Maryland	Md.
Massachusetts	Mass.
Michigan	Mich.
Minnesota	Minn.
Mississippi	Miss.
Missouri	Mo.
Montana	Mont.

Nebraska	Nebr., Neb.
Nevada	Nev.
New Hampshire	N. H.
New Jersey	N. J.
New Mexico	N. Mex., N. M.
New York	N. Y.
North Carolina	N. C.
North Dakota	N. Dak., N. D.
Ohio	(none), O.
Oklahoma	Okla.
Oregon	Oreg., Ore.
Pennsylvania	Pa., Penn., Penna.
Rhode Island	R. I.
South Carolina	S. C.
South Dakota	S. Dak., S. D.
Tennessee	Tenn.
Texas	Tex.
Utah	(none), Ut.
Vermont	Vt.
Virginia	Va.
Washington	Wash.
West Virginia	W. Va.
Wisconsin	Wis., Wisc.
Wyoming	Wyo., Wy.

NOTE: Where more than one abbreviation is given, the first is the one preferred by the U. S. Post Office Department for use in addresses. The designation (none) means the Department prefers the state not be abbreviated.

Climate of Selected U. S. Cities

Source: U. S. Weather Bureau.

State and city	Average mean temperature, F.			Average annual precipitation, inches	Average annual snowfall, inches	Average annual % possible sunshine	Average annual relative humidity
	Jan.	July	Annual				
Alabama: Mobile.....	52.2	81.8	67.6	62.40	0.2	61	77
Montgomery.....	49.2	81.7	65.8	51.39	0.7	64	71
Arizona: Phoenix.....	51.9	90.5	70.4	7.75	T	85	42
Arkansas: Little Rock.....	42.1	81.2	62.3	47.95	4.6	62	71
California: Fresno.....	46.1	81.9	63.3	9.41	0.1	78	56
Los Angeles.....	55.4	70.7	63.1	15.10	T	73	68
San Francisco.....	47.7	60.7	55.7	17.69	T	66	77
Colorado: Denver.....	30.5	72.6	50.5	14.06	55.9	67	51
D. C.: Washington.....	34.8	77.3	55.7	42.06	20.1	58	67
Florida: Jacksonville.....	56.2	81.9	69.5	51.31	T	62	76
Miami.....	68.3	81.6	75.2	55.20	T	66	77
Georgia: Atlanta.....	43.7	78.5	61.6	48.61	2.2	60	69
Idaho: Boise.....	26.9	75.7	50.7	11.90	22.2	61	59
Illinois: Chicago.....	25.0	73.3	49.6	33.06	33.9	59	72
Indiana: Indianapolis.....	29.2	76.3	53.1	40.00	20.5	57	70
Iowa: Des Moines.....	21.3	76.1	50.0	31.86	32.3	61	72
Kansas: Wichita.....	31.9	80.0	56.6	30.64	14.1	68	66
Kentucky: Louisville.....	34.9	78.5	57.0	42.95	13.7	58	69
Louisiana: New Orleans.....	55.1	82.6	69.7	60.46	.2	59	75
Maine: Eastport.....	21.2	60.4	41.9	39.19	71.1	51	79
Massachusetts: Boston.....	28.7	72.3	50.1	40.58	42.4	56	67
Michigan: Detroit.....	25.1	72.7	48.7	31.65	39.2	52	71
Sault Ste. Marie.....	14.5	63.9	39.8	30.14	83.1	47	77
Minnesota: Minneapolis.....	13.7	73.1	45.0	26.93	42.2	56	68
Mississippi: Vicksburg.....	48.7	81.4	65.8	51.71	1.7	63	74
Missouri: Kansas City.....	29.9	79.2	55.4	36.61	20.6	63	66
St. Louis.....	32.4	79.7	56.6	39.28	17.6	60	68
Montana: Helena.....	20.0	67.7	43.7	12.64	54.7	60	59
Miles City.....	16.9	74.4	45.7	13.01	32.0	62	62
Nebraska: North Platte.....	23.8	74.9	49.5	18.50	25.2	68	68
Omaha.....	22.2	77.4	51.1	28.04	28.5	63	67
Nevada: Winnemucca.....	27.8	71.9	48.6	8.54	28.4	72	51
New Jersey: Atlantic City.....	34.1	72.9	53.0	40.99	14.5	60	78
New Mexico: Albuquerque.....	34.1	78.0	56.3	8.50	8.6	77	46
New York: Albany.....	23.7	72.4	48.3	36.83	50.2	53	70
New York.....	31.7	74.4	52.7	42.90	31.1	59	70
Rochester.....	25.1	71.3	47.8	33.04	75.2	50	74
North Carolina: Asheville.....	39.1	73.1	55.8	38.16	10.8	58	76
Raleigh.....	42.5	78.6	60.4	46.49	7.3	60	72
North Dakota: Bismarck.....	8.2	70.6	41.0	16.39	35.4	59	67
Ohio: Cleveland.....	24.7	71.9	48.7	33.82	41.4	51	71
Oklahoma: Oklahoma City.....	37.4	81.3	60.2	31.88	8.0	67	66
Oregon: Portland.....	39.3	67.6	53.7	42.20	12.6	48	75
Pennsylvania: Harrisburg.....	30.6	75.1	52.6	37.56	31.5	57	67
Pittsburgh.....	31.2	74.3	52.6	36.21	34.7	51	68
South Carolina: Charleston.....	50.8	81.5	66.2	47.39	.2	66	77
South Dakota: Huron.....	12.6	73.0	44.5	19.54	29.3	63	69
Tennessee: Nashville.....	39.4	79.4	59.6	46.62	9.0	59	70
Texas: Amarillo.....	36.7	78.9	57.9	21.08	19.2	77	59
El Paso.....	44.7	81.6	63.7	8.76	2.6	80	40
Fort Worth.....	46.0	84.1	65.7	32.06	2.6	68	64
Houston.....	53.5	83.3	69.3	45.86	.2	59	76
Utah: Salt Lake City.....	29.2	76.8	52.1	16.10	54.6	68	57
Vermont: Burlington.....	18.7	70.0	44.7	32.27	65.3	46	75
Virginia: Norfolk.....	42.0	78.5	59.9	45.20	9.0	61	72
Richmond.....	39.2	78.0	58.3	41.78	12.4	61	72
Washington: Seattle.....	40.2	64.4	52.1	33.63	11.7	43	76
Spokane.....	26.9	70.3	48.5	16.10	37.9	58	65
West Virginia: Parkersburg.....	33.7	75.3	54.4	39.14	24.7	48	74
Wisconsin: Madison.....	17.6	72.5	46.1	31.24	38.3	53	72
Wyoming: Cheyenne.....	25.8	67.4	44.9	14.86	57.1	65	56

Coastline of the United States

Source: U. S. Coast and Geodetic Survey.

State	Lengths in statute miles		
	General coastline*	Tidal shoreline, general†	Tidal shoreline, detailed‡
Maine.....	228	676	3,478
New Hampshire.....	13	14	131
Massachusetts.....	192	453	1,519
Rhode Island.....	40	156	384
Connecticut.....	...	96	618
New York.....	127	470	1,850
New Jersey.....	130	398	1,792
Pennsylvania.....	...	...	89
Delaware.....	28	79	381
Maryland.....	31	452	3,190
Virginia.....	112	567	3,315
North Carolina.....	301	1,030	3,375
South Carolina.....	187	758	2,876
Georgia.....	100	603	2,344
Florida (Atlantic).....	399	618	3,035
Total Atlantic coast.....	1,888	6,370	28,377
Florida (Gulf).....	798	1,658	5,391
Alabama.....	53	199	607
Mississippi.....	44	155	359
Louisiana.....	397	985	7,721
Texas.....	367	1,100	3,359
Total Gulf coast.....	1,659	4,097	17,437
California.....	840	1,190	3,427
Oregon.....	296	312	1,410
Washington.....	157	908	3,026
Total Pacific coast.....	1,293	2,410	7,863
Total U. S.....	4,840	12,877	53,677

* Figures are lengths of general outline of seacoast. Measurements made with unit measure of 30 minutes of latitude on charts as near scale of 1:1,200,000 as possible. Shoreline of bays and sounds is included to point where they narrow to width of unit measure, and distance across at such point is included. † Measurements made with unit measure of 3 statute miles on charts of 1:200,000 and 1:400,000 scale when available. Shoreline of bays, sounds and other bodies of water included to point where they narrow to width of 3 statute miles, and distance across at such point is included. ‡ Figures obtained in 1939-40 with recording measure on largest scale maps and charts then available. Shoreline of bays, sounds and other bodies of water included to head of tide-water, or to point where they narrow to width of 100 feet.

Arrival and Departure of Aliens

Source: Immig. & Naturalization Service.

Year	Aliens admitted*	Aliens departed†	Excess of admissions	Aliens excluded	Aliens deported
1920.....	621,576	428,062	193,514	11,795	2,762
1921.....	978,163	426,031	552,132	13,779	4,517
1922.....	432,505	345,384	87,121	13,731	4,345
1923.....	673,406	200,586	472,820	20,619	3,661
1924.....	879,302	216,745	662,557	30,284	6,409
1925.....	458,435	225,490	232,945	25,390	9,495
1926.....	496,106	227,755	268,351	20,550	10,904
1927.....	538,001	253,508	284,493	19,755	11,662
1928.....	500,631	274,356	226,275	18,839	11,625
1929.....	479,327	252,498	226,829	18,127	12,908
1930.....	446,214	272,425	173,789	8,233	16,631
1931.....	280,679	290,916	-10,237	9,744	18,142
1932.....	174,871	287,657	-112,786	7,064	19,426
1933.....	150,728	243,802	-93,074	5,527	19,865
1934.....	163,904	177,172	-13,268	5,384	8,879
1935.....	179,721	189,050	-9,329	5,558	8,319
1936.....	190,899	193,284	-2,385	7,000	9,195
1937.....	231,884	224,582	7,302	8,076	8,829
1938.....	252,697	222,614	30,083	8,066	9,275
1939.....	268,331	201,409	66,922	6,498	8,202
1940.....	208,788	166,164	42,624	5,300	6,954
1941.....	151,784	88,477	63,307	2,929	4,407
1942.....	111,238	74,552	36,686	1,833	3,709
1943.....	104,842	58,722	46,120	1,495	4,207
1944.....	142,192	84,409	57,783	1,642	7,179
1945.....	202,366	93,362	109,004	2,341	11,270
1946.....	312,190	204,353	107,837	2,942	14,375
1947.....	513,597	323,422	190,175	4,771	18,663
1948.....	646,576	448,218	198,358	4,905	20,371
1949.....	635,589	430,089	205,500	3,834	20,040
1950.....	676,024	456,689	219,335	3,571	6,628
1951.....	670,323	472,901	197,922	3,784	13,544

* Immigrants and nonimmigrants.
† Emigrants and nonemigrants.

Estimated Population of the U. S., 1940-52

Date	Civilian only	Including armed forces in U. S.	Including armed forces overseas	Date	Civilian only	Including armed forces in U. S.	Including armed forces overseas
Apr. 1, 1940.....	131,391,000 ¹	131,669,275 ²	131,820,000 ³	Jan. 1, 1947.....	140,968,000	141,886,000	142,828,000
July 1, 1940.....	131,642,000	131,936,000	132,114,000	July 1, 1947.....	142,595,000	143,375,000	144,129,000
Jan. 1, 1941.....	131,874,000	132,536,000	132,776,000	Jan. 1, 1948.....	144,058,000	144,868,000	145,468,000
July 1, 1941.....	131,556,000	133,053,000	133,377,000	July 1, 1948.....	145,171,000	146,045,000	146,621,000
Jan. 1, 1942.....	131,976,000	133,692,000	134,135,000	Jan. 1, 1949.....	146,330,000	147,370,000	147,975,000
July 1, 1942.....	130,854,000	133,752,000	134,831,000	July 1, 1949.....	147,512,000	148,558,000	149,149,000
Jan. 1, 1943.....	128,779,000	134,032,000	135,838,000	Jan. 1, 1950.....	148,991,000	150,039,000	150,563,000
July 1, 1943.....	127,415,000	133,971,000	136,719,000	Apr. 1, 1950.....	149,634,000 ¹	150,697,361 ²	151,132,000 ³
Jan. 1, 1944.....	127,141,000	133,585,000	137,641,000	July 1, 1950.....	150,208,000	151,240,000	151,689,000
July 1, 1944.....	126,606,000	132,622,000	138,390,000	Jan. 1, 1951.....	150,659,000	152,365,000	153,085,000
Jan. 1, 1945.....	127,198,000	131,824,000	133,234,000	July 1, 1951.....	151,072,000	153,377,000	154,353,000
July 1, 1945.....	127,571,000	132,137,000	139,934,000	Jan. 1, 1952.....	152,286,000	154,551,000	155,793,000
Jan. 1, 1946.....	133,842,000	136,923,000	140,666,000	July 1, 1952.....	.....	.....	157,015,000
July 1, 1946.....	138,394,000	139,893,000	141,398,000				

¹ Census figure minus estimate of armed forces in continental U. S. ² Census figure. ³ Census figure plus estimate of armed forces overseas. NOTE: All estimated figures are provisional. Figures for dates between the 1940 and 1950 Censuses have been revised from those earlier issued. Source: U. S. Bureau of the Census.

Population and Area of Major U. S. Cities

(over 50,000 population in 1950)

Source: U. S. Bureau of the Census.

City	1910 population	1920 population	1930 population	1940 population	1950 population	1950 rank	Area sq. mi.*
Akron, Ohio	69,067	208,435	255,040	244,791	274,605	39	53.7
Alameda, Calif.	23,383	28,806	35,033	36,256	64,430	184	6.5†
Albany, N. Y.	100,253	113,344	127,412	130,577	134,995	68	19.0
Albuquerque, N. Mex.	11,020	15,157	26,570	35,449	96,815	112	11.0†
Alexandria, Va.	15,329	18,060	24,149	33,523	61,787	192	7.5†
Alhambra, Calif.	5,021	9,096	29,472	38,935	51,359	224	6.4†
Allentown, Pa.	51,913	73,502	92,563	96,904	106,756	99	15.9
Altoona, Pa.	52,127	60,331	82,054	80,214	77,177	150	10.0
Amarillo, Tex.	9,957	15,494	43,132	51,686	74,246	155	20.9
Asheville, N. C.	18,762	28,504	50,193	51,310	53,000	215	14.5
Atlanta, Ga.	154,839	200,616	270,366	302,288	331,314	33	36.9
Atlantic City, N. J.	46,150	50,707	66,198	64,094	61,657	193	11.5
Augusta, Ga.	41,040	52,548	60,342	65,919	71,508	165	9.8
Aurora, Ill.	29,807	36,397	46,589	47,170	50,576	230	7.9†
Austin, Tex.	29,860	34,876	53,120	87,930	132,459	72	32.1
Baltimore, Md.	558,485	733,826	804,874	859,100	949,708	6	78.7
Baton Rouge, La.	14,897	21,782	30,729	34,719	125,629	81	30.2
Bay City, Mich.	45,166	47,554	47,355	47,958	52,523	218	9.6†
Bayonne, N. J.	55,545	76,754	88,979	79,198	77,203	149	4.4†
Beaumont, Tex.	20,640	40,422	57,732	59,061	94,014	118	31.4
Berkeley, Calif.	40,434	56,036	82,109	85,547	113,805	90	9.4†
Berwyn, Ill.	5,841	14,150	47,027	48,451	51,280	225	3.8†
Bethlehem, Pa.	12,837	50,358	57,892	58,490	66,340	176	18.6
Binghamton, N. Y.	48,443	66,800	76,662	78,309	80,674	139	10.1
Birmingham, Ala.	132,685	178,806	259,678	267,583	326,037	34	65.3
Boston, Mass.	670,585	748,060	781,188	770,816	801,444	10	47.8
Bridgeport, Conn.	102,054	143,555	146,716	147,121	158,709	63	14.6
Brockton, Mass.	56,878	66,254	63,797	62,343	62,860	191	21.4
Buffalo, N. Y.	423,715	506,775	573,076	575,901	580,132	15	39.4
Burbank, Calif.		2,913	16,662	34,337	78,577	146	16.3†
Cambridge, Mass.	104,839	109,694	113,643	110,879	120,740	86	6.3†
Camden, N. J.	94,538	116,309	118,700	117,536	124,555	85	8.7†
Canton, Ohio	50,217	87,091	104,906	108,401	116,912	88	14.1
Cedar Rapids, Iowa	32,811	45,566	56,097	62,120	72,296	161	25.4
Charleston, S. C.	58,833	67,957	62,265	71,275	70,174	170	5.1
Charleston, W. Va.	22,996	39,608	60,408	67,914	73,501	159	9.6
Charlotte, N. C.	34,014	46,338	82,675	100,899	134,042	69	30.0
Chattanooga, Tenn.	44,604	57,895	119,798	128,163	131,041	73	28.0
Chester, Pa.	38,537	58,030	59,164	59,285	66,039	179	4.5†
Chicago, Ill.	2,185,283	2,701,705	3,376,438	3,396,808	3,620,962	2	207.5
Cicero, Ill.	14,557	44,995	66,602	64,712	67,544	173	5.8†
Cincinnati, Ohio	363,591	401,247	451,160	455,610	503,998	18	75.1
Cleveland, Ohio	560,663	796,841	900,429	878,336	914,808	7	75.0
Cleveland Heights, Ohio	2,955	15,236	50,945	54,992	59,141	198	8.2†
Clifton, N. J.		26,470	46,875	48,827	64,511	182	11.7†
Columbia, S. C.	26,319	37,524	51,581	62,396	86,914	129	12.8
Columbus, Ga.	20,554	31,125	43,131	53,280	79,611	142	12.0
Columbus, Ohio	181,511	237,031	290,564	306,087	375,901	28	39.4
Corpus Christi, Tex.	8,222	10,522	27,741	57,301	108,287	97	19.8
Covington, Ky.	53,270	57,121	65,252	62,018	64,452	183	6.4†
Cranston, R. I.	21,107	29,407	42,911	47,085	55,060	210	28.7†
Dallas, Tex.	92,104	158,976	260,475	294,734	434,462	22	112.0
Davenport, Iowa	43,028	56,727	60,751	66,039	74,549	152	18.1
Dayton, Ohio	116,577	152,559	200,982	210,718	243,872	44	25.0
Dearborn, Mich.	911	2,470	50,358	63,584	94,994	117	25.1†
Decatur, Ill.	31,140	43,818	57,510	59,305	66,269	177	9.3
Denver, Colo.	213,381	256,491	287,861	322,412	415,786	24	66.8
Des Moines, Iowa	86,368	126,468	142,559	159,819	177,965	53	54.9
Detroit, Mich.	465,766	993,678	1,568,662	1,623,452	1,849,568	5	139.6
Duluth, Minn.	78,466	98,917	101,463	101,065	104,511	102	62.3
Durham, N. C.	18,241	21,719	52,037	60,195	71,311	166	13.2
East Chicago, Ind.	19,098	35,967	54,784	54,637	54,263	213	10.4†
East Orange, N. J.	34,371	50,710	68,020	68,945	79,340	143	3.9†
East St. Louis, Ill.	58,547	66,767	74,347	75,609	82,295	135	13.4†

City	1910 population	1920 population	1930 population	1940 population	1950 population	1950 rank	Area, sq. mi.*
El Paso, Tex.	39,279	77,560	102,421	96,810	130,485	75	25.6
Elizabeth, N. J.	73,409	95,783	114,589	109,912	112,817	91	11.7†
Erie, Pa.	66,525	93,372	115,967	116,955	130,803	74	18.8
Evanston, Ill.	24,978	37,234	63,338	65,389	73,641	158	8.2†
Evansville, Ind.	69,647	85,264	102,249	97,062	128,636	78	18.0
Fall River, Mass.	119,295	120,485	115,274	115,428	111,963	92	33.9
Flint, Mich.	38,550	91,599	156,492	151,543	163,143	60	29.3
Fort Wayne, Ind.	63,933	86,549	114,946	118,410	133,607	71	18.8
Fort Worth, Tex.	73,312	106,482	163,447	177,662	278,778	38	93.7
Fresno, Calif.	24,892	45,086	52,513	60,685	91,669	124	15.0
Gadsden, Ala.	10,557	14,737	24,042	36,975	55,725	207	12.7†
Galveston, Tex.	36,981	44,255	52,938	60,862	66,568	175	8.1
Gary, Ind.	16,802	55,378	100,426	111,719	133,911	70	40.3†
Glendale, Calif.	2,746	13,536	62,736	82,582	95,702	115	20.0†
Grand Rapids, Mich.	112,571	137,634	168,592	164,292	176,515	55	23.4
Green Bay, Wis.	25,236	31,017	37,415	46,235	52,735	216	13.8†
Greensboro, N. C.	15,895	19,861	53,569	59,319	74,389	153	18.2
Greenville, S. C.	15,741	23,127	29,154	34,734	58,161	201	4.7†
Hamilton, Ohio	35,279	39,675	52,176	50,592	57,951	202	7.6
Hammond, Ind.	20,925	36,004	64,560	70,184	87,594	128	23.5†
Harrisburg, Pa.	64,186	75,917	80,339	83,893	89,544	126	6.3
Hartford, Conn.	98,915	138,036	164,072	166,267	177,397	54	17.4
Hoboken, N. J.	70,324	68,166	59,261	50,115	50,676	229	1.0†
Holyoke, Mass.	57,730	60,203	56,537	53,750	54,661	211	21.0
Houston, Tex.	78,800	138,276	292,352	384,514	596,163	14	160.0
Huntington, W. Va.	31,161	50,177	75,572	78,836	86,353	130	14.0
Indianapolis, Ind.	233,650	314,194	364,161	386,972	427,173	23	55.2
Irrington, N. J.	11,877	25,480	56,733	55,328	59,201	197	3.1†
Jackson, Mich.	31,433	48,374	55,187	49,656	51,088	228	10.2†
Jackson, Miss.	21,262	28,817	48,282	62,107	98,271	110	27.0
Jacksonville, Fla.	57,699	91,558	129,549	173,065	204,517	49	30.2
Jersey City, N. J.	267,779	298,103	316,715	301,173	299,017	37	13.0
Johnstown, Pa.	55,482	67,327	66,993	66,668	63,232	189	5.6
Joliet, Ill.	34,670	38,442	42,993	42,365	51,601	222	5.8†
Kalamazoo, Mich.	39,437	48,487	54,786	54,097	57,704	203	8.8
Kansas City, Kans.	82,331	101,177	121,857	121,458	129,553	76	19.2†
Kansas City, Mo.	248,381	324,410	399,746	399,178	456,622	20	80.6
Kenosha, Wis.	21,371	40,472	50,262	48,765	54,368	212	7.6†
Knoxville, Tenn.	36,346	77,818	105,802	111,580	124,769	83	25.4
Lakewood, Ohio	15,181	41,732	70,509	69,160	68,071	171	5.6†
Lancaster, Pa.	47,227	53,150	59,949	61,345	63,774	186	4.3
Lansing, Mich.	31,229	57,327	78,397	78,753	92,129	121	14.1
Laredo, Tex.	14,855	22,710	32,618	39,274	51,910	221	13.5†
Lawrence, Mass.	85,892	94,270	85,068	84,323	80,536	140	6.7
Lexington, Ky.	35,099	41,534	45,736	49,304	55,534	209	5.4†
Lima, Ohio	30,508	41,326	42,287	44,711	50,246	231	7.5†
Lincoln, Nebr.	43,973	54,948	75,933	81,984	98,884	109	23.8
Little Rock, Ark.	45,941	65,142	81,679	88,039	102,213	105	21.0
Long Beach, Calif.	17,809	55,593	142,032	164,271	250,767	41	31.0†
Lorain, Ohio	28,883	37,295	44,512	44,125	51,202	226	10.5†
Los Angeles, Calif.	319,198	576,673	1,238,048	1,504,277	1,970,358	4	450.9
Louisville, Ky.	223,928	234,891	307,745	319,077	369,129	30	39.9
Lowell, Mass.	106,294	112,759	100,234	101,389	97,249	111	12.9
Lubbock, Tex.	1,938	4,051	23,520	31,853	71,747	163	6.3†
Lynn, Mass.	89,336	99,148	102,320	98,123	99,738	107	10.4†
McKeesport, Pa.	42,694	46,781	54,632	55,355	51,502	223	4.8†
Macon, Ga.	40,665	52,995	53,829	57,865	70,252	169	12.0
Madison, Wis.	25,531	38,378	57,899	67,447	96,056	114	15.4
Malden, Mass.	44,404	49,103	58,036	58,010	59,804	195	4.8†
Manchester, N. H.	70,063	78,384	76,834	77,685	82,732	134	32.1
Medford, Mass.	23,150	39,038	59,714	63,083	66,113	178	8.1†
Memphis, Tenn.	131,105	162,351	253,143	292,942	396,000	26	104.2
Miami, Fla.	5,471	29,571	110,637	172,172	249,276	42	34.2
Milwaukee, Wis.	373,857	457,147	578,249	587,472	637,392	13	50.0
Minneapolis, Minn.	301,408	380,582	464,356	492,370	521,718	17	53.8
Mobile, Ala.	51,521	60,777	68,202	78,720	129,009	77	25.4
Montgomery, Ala.	38,136	43,464	66,079	78,084	106,525	100	26.1
Mount Vernon, N. Y.	30,919	42,726	61,499	67,362	71,899	162	4.1†
Muncie, Ind.	24,005	36,524	46,548	49,720	58,479	200	9.3†
Nashville, Tenn.	110,364	118,342	153,866	167,402	174,307	56	22.0

City	1910 population	1920 population	1930 population	1940 population	1950 population	1950 rank	Area, sq. mi.*
New Bedford, Mass.	96,652	121,217	112,597	110,341	109,189	96	19.1
New Britain, Conn.	43,916	59,316	68,128	68,685	73,726	156	13.7
New Haven, Conn.	133,605	162,537	162,655	160,605	164,443	59	17.9
New Orleans, La.	339,075	387,219	458,762	494,537	570,445	16	199.4
New Rochelle, N. Y.	28,867	36,213	54,000	58,408	59,725	196	9.9†
New York, N. Y.	4,766,883	5,620,048	6,930,446	7,454,995	7,891,957	1	319.1
Bronx	430,980	732,016	1,265,258	1,394,711	1,451,277	...	41.4
Brooklyn	1,634,351	2,018,356	2,560,401	2,698,285	2,738,175	...	79.8
Manhattan	2,331,542	2,284,103	1,867,312	1,889,924	1,960,101	...	22.3
Queens	284,041	469,042	1,079,129	1,297,634	1,550,849	...	118.6
Richmond	85,969	116,531	158,346	174,441	191,555	...	57.0
Newark, N. J.	347,469	414,524	442,337	429,760	438,776	21	23.6
Newton, Mass.	39,806	46,054	65,276	69,873	81,994	136	17.4†
Niagara Falls, N. Y.	30,445	50,760	75,460	78,029	90,872	125	12.7
Norfolk, Va.	67,452	115,777	129,710	144,332	213,513	48	28.2
Oak Park, Ill.	19,444	39,858	63,982	66,015	63,529	188	4.7†
Oakland, Calif.	150,174	216,261	284,063	302,163	384,575	27	53.0
Ogden, Utah	25,580	32,804	40,272	43,688	57,112	206	16.5†
Oklahoma City, Okla.	64,205	91,295	185,389	204,424	243,504	45	50.8
Omaha, Nebr.	124,096	191,601	214,006	223,844	251,117	40	40.7
Orlando, Fla.	3,894	9,282	27,330	36,736	52,367	219	14.1
Pasadena, Calif.	30,291	45,354	76,086	81,864	104,577	101	19.4†
Passaic, N. J.	54,773	63,841	62,959	61,394	57,702	204	3.1†
Paterson, N. J.	125,600	135,875	138,513	139,656	139,336	66	8.1†
Pawtucket, R. I.	51,622	64,248	77,149	75,797	81,436	138	8.6†
Peoria, Ill.	66,950	76,121	104,969	105,087	111,856	93	12.9
Philadelphia, Pa.	1,549,008	1,823,779	1,950,961	1,931,334	2,071,605	3	127.2
Phoenix, Ariz.	11,134	29,053	48,118	65,414	106,818	98	17.1
Pittsburgh, Pa.	533,905	588,343	669,817	671,659	676,806	12	54.2
Pittsfield, Mass.	32,121	41,763	49,677	49,684	53,348	214	40.9†
Pontiac, Mich.	14,532	34,273	64,928	66,626	73,681	157	19.8
Port Arthur, Tex.	7,663	22,251	50,902	46,140	57,530	205	12.2
Portland, Maine	58,571	69,272	70,810	73,643	77,634	148	21.6
Portland, Oreg.	207,214	258,288	301,815	305,394	373,628	29	64.1
Portsmouth, Va.	33,190	54,387	45,704	50,745	80,039	141	10.2
Providence, R. I.	224,326	237,595	252,981	253,504	248,674	43	17.9
Pueblo, Colo.	41,747	43,050	50,096	52,162	63,685	187	10.6
Quincy, Mass.	32,642	47,876	71,983	75,810	83,835	133	16.8†
Racine, Wis.	38,002	58,593	67,542	67,195	71,193	167	9.2
Raleigh, N. C.	19,218	24,418	37,379	46,897	65,679	180	11.0
Reading, Pa.	96,071	107,784	111,171	110,568	109,320	95	8.8
Richmond, Calif.	6,802	16,843	20,093	23,642	99,545	108	13.2†
Richmond, Va.	127,628	171,667	182,929	193,042	230,310	46	37.1
Roanoke, Va.	34,874	50,842	69,206	69,287	91,921	122	26.5
Rochester, N. Y.	218,149	295,750	328,132	324,975	332,488	32	36.0
Rockford, Ill.	45,401	65,651	85,864	84,637	92,927	119	14.0
Sacramento, Calif.	44,696	65,908	93,750	105,958	137,572	67	16.9
Saginaw, Mich.	50,510	61,903	80,715	82,794	92,918	120	16.6
St. Joseph, Mo.	77,403	77,939	80,935	75,711	78,588	145	14.1
St. Louis, Mo.	687,029	772,897	821,960	816,048	856,796	8	61.0
St. Paul, Minn.	214,744	234,698	271,606	287,736	311,349	35	52.2
St. Petersburg, Fla.	4,127	14,237	40,425	60,812	96,738	113	52.2
Salt Lake City, Utah	92,777	118,110	140,267	149,934	182,121	52	53.9
San Angelo, Tex.	10,321	10,050	25,308	25,802	52,093	220	7.1†
San Antonio, Tex.	96,614	161,379	231,542	253,854	408,442	25	69.5
San Bernardino, Calif.	12,779	18,721	37,481	43,646	63,058	190	19.5
San Diego, Calif.	39,578	74,361	147,995	203,341	334,387	31	99.4
San Francisco, Calif.	416,912	506,676	634,394	634,536	775,357	11	44.6
San Jose, Calif.	28,946	39,642	57,651	68,457	95,280	116	17.0
Santa Monica, Calif.	7,847	15,252	37,146	53,500	71,595	164	8.0†
Savannah, Ga.	65,064	83,252	85,024	95,996	119,638	87	14.6
Schenectady, N. Y.	72,826	88,723	95,692	87,549	91,785	123	10.2
Scranton, Pa.	129,867	137,783	143,433	140,404	125,536	82	24.9
Seattle, Wash.	237,194	315,312	365,583	368,302	467,591	19	70.8
Shreveport, La.	28,015	43,874	76,655	98,167	127,206	80	24.0
Sioux City, Iowa	47,828	71,227	79,183	82,364	83,991	132	45.0
Sioux Falls, S. Dak.	14,094	25,202	33,362	40,832	52,696	217	10.7†
Somerville, Mass.	77,236	93,091	103,908	102,177	102,351	104	4.1†
South Bend, Ind.	53,684	70,983	104,193	101,268	115,911	89	20.2
South Gate, Calif.	...	...	19,632	26,945	51,116	227	7.0†

City	1910 population	1920 population	1930 population	1940 population	1950 population	1950 rank	Area, sq. mi.*
Spokane, Wash.	104,402	104,437	115,514	122,001	161,721	62	41.5
Springfield, Ill.	51,678	59,183	71,864	75,503	81,628	137	10.4
Springfield, Mass.	88,926	129,614	149,900	149,554	162,399	61	31.7
Springfield, Mo.	35,201	39,631	57,527	61,238	66,731	174	13.6
Springfield, Ohio	46,921	60,840	68,743	70,662	78,508	147	12.1
Stamford, Conn.	25,138	35,096	46,346	47,938	74,293	154	37.6
Stockton, Calif.	23,253	40,296	47,963	54,714	70,853	168	11.8
Syracuse, N. Y.	137,249	171,717	209,326	205,967	220,583	47	25.3
Tacoma, Wash.	83,743	96,965	106,817	109,408	143,673	65	47.9
Tampa, Fla.	37,782	51,608	101,161	108,391	124,681	84	19.0
Terre Haute, Ind.	58,157	66,083	62,810	62,693	64,214	185	12.2
Toledo, Ohio	168,497	243,164	290,718	282,349	303,616	36	38.3
Topeka, Kans.	43,684	50,022	64,120	67,833	78,791	144	12.5
Trenton, N. J.	96,815	119,289	123,356	124,697	128,009	79	7.2
Troy, N. Y.	76,813	71,996	72,763	70,304	72,311	160	9.3
Tulsa, Okla.	18,182	72,075	141,258	142,157	182,740	51	26.7
Union City, N. J.	21,023	20,651	58,659	56,173	55,537	208	1.3†
Utica, N. Y.	74,419	94,156	101,740	100,518	101,531	106	15.8
Waco, Tex.	26,425	38,500	52,848	55,982	84,706	131	26.0
Washington, D. C.	331,069	437,571	486,869	663,091	802,178	9	61.4
Waterbury, Conn.	73,141	91,715	99,902	99,314	104,477	103	27.6
Waterloo, Iowa	26,693	36,230	46,191	51,743	65,198	181	31.3
Wheeling, W. Va.	41,641	56,208	61,659	61,099	58,891	199	10.4
Wichita, Kans.	52,450	72,217	111,110	114,966	168,279	58	25.7
Wichita Falls, Tex.	8,200	40,079	43,690	45,112	68,042	172	10.8†
Wilkes-Barre, Pa.	67,105	73,833	86,626	86,236	76,826	151	6.9
Wilmington, Del.	87,411	110,168	106,597	112,504	110,356	94	9.8
Winston-Salem, N. C.	22,700	48,395	75,274	79,815	87,811	127	18.8
Woonsocket, R. I.	38,125	49,496	49,376	49,303	50,211	232	8.6†
Worcester, Mass.	145,986	179,754	195,311	193,694	203,486	50	37.0
Yonkers, N. Y.	79,803	100,176	134,646	142,598	152,798	64	17.2†
York, Pa.	44,750	47,512	55,254	56,712	59,953	194	4.2
Youngstown, Ohio	79,066	132,358	170,002	167,720	168,330	57	32.8

* Land area; 1950, unless otherwise indicated. † 1940 land area. NOTE: Increase in population from census to census includes that due to annexation of territory as well as to direct growth.

Density of U. S. Population by State

Source: U. S. Bureau of the Census.

State	Land area, sq. mi.*	Population per sq. mi.			State	Land area, sq. mi.*	Population per sq. mi.		
		1920	1940	1950			1920	1940	1950
District of Columbia	61	7,292.9	10,870.3	13,150.5	Missouri	69,226	49.5	54.6	57.1
Rhode Island	1,058	566.4	674.2	748.5	Florida	54,262	17.7	35.0	51.1
New Jersey	7,522	420.0	553.1	642.8	Iowa	56,045	43.2	45.3	46.8
Massachusetts	7,867	479.2	545.9	596.2	Mississippi	47,248	38.6	46.1	46.1
Connecticut	4,899	286.4	348.9	409.7	Vermont	9,278	38.6	38.7	40.7
New York	47,944	217.9	281.2	309.3	Minnesota	80,009	29.5	34.9	37.3
Maryland	9,881	145.8	184.2	237.1	Arkansas	52,675	33.4	37.0	36.3
Pennsylvania	45,045	194.5	219.8	233.1	Washington	66,786	20.3	25.9	35.6
Ohio	41,000	141.4	168.0	193.8	Oklahoma	69,031	29.2	33.7	32.4
Delaware	1,978	113.5	134.7	160.8	Maine	31,040	25.7	27.3	29.4
Illinois	55,935	115.7	141.2	155.8	Texas	263,513	17.8	24.3	29.3
Michigan	57,022	63.8	92.2	111.7	Kansas	82,108	21.6	21.9	23.2
Indiana	36,205	81.3	94.7	108.7	Nebraska	76,663	16.9	17.2	17.3
West Virginia	24,080	60.9	79.0	83.3	Oregon	96,315	8.2	11.3	15.8
Virginia	39,893	57.4	67.1	83.2	Colorado	103,922	9.1	10.8	12.8
North Carolina	49,097	52.5	72.7	82.7	North Dakota	70,057	9.2	9.2	8.8
Tennessee	41,797	56.1	69.5	78.8	South Dakota	76,536	8.3	8.4	8.5
Kentucky	39,864	60.1	70.9	73.9	Utah	82,346	5.5	6.7	8.4
South Carolina	30,305	55.2	62.1	69.9	Idaho	82,769	5.2	6.3	7.1
California	156,740	22.0	44.1	67.5	Arizona	113,575	2.9	4.4	6.6
Wisconsin	54,705	47.6	57.3	62.8	New Mexico	121,511	2.9	4.4	5.6
Alabama	51,078	45.8	55.5	59.9	Montana	145,878	3.8	3.8	4.1
Louisiana	45,162	39.6	52.3	59.4	Wyoming	97,506	2.0	2.6	3.0
New Hampshire	9,017	49.1	54.5	59.1	Nevada	109,789	0.7	1.0	1.5
Georgia	58,483	49.3	53.4	58.9					

U. S. Population by States, 1790 to 1950

Source: U. S. Bureau of the Census.

State	1790	1800	1810	1820	1830	1840
Alabama				127,901	309,527	590,756
Arkansas			1,062	14,273	30,388	97,574
Connecticut	237,946	251,002	261,942	275,248	297,675	309,978
Delaware	59,096	64,273	72,674	72,749	76,748	78,085
D. C.		14,093	24,023	33,039	39,834	43,712
Florida					34,730	54,477
Georgia	82,548	162,686	252,433	340,989	516,823	691,392
Illinois			12,282	55,211	157,445	476,183
Indiana		5,641	24,520	147,178	343,031	685,866
Iowa						43,112
Kentucky	73,677	220,955	406,511	564,317	687,917	779,828
Louisiana			76,556	153,407	215,739	352,411
Maine	96,540	151,719	228,705	298,335	399,455	501,793
Maryland	319,728	341,548	380,546	407,350	447,040	470,019
Massachusetts	378,787	422,845	472,040	523,287	610,408	737,699
Michigan			4,762	8,896	31,639	212,267
Mississippi		8,850	40,352	75,448	136,621	375,651
Missouri			19,783	66,586	140,455	383,702
New Hampshire	141,885	183,858	214,460	244,161	269,328	284,574
New Jersey	184,139	211,149	245,562	277,575	320,823	373,306
New York	340,120	589,051	959,049	1,372,812	1,918,608	2,428,921
North Carolina	393,751	478,103	555,500	638,829	737,987	753,419
Ohio		45,365	230,760	581,434	937,903	1,519,467
Pennsylvania	434,373	602,365	810,091	1,049,458	1,348,233	1,724,033
Rhode Island	68,825	69,122	76,931	83,059	97,199	108,830
South Carolina	249,073	345,591	415,115	502,741	581,185	594,398
Tennessee	35,691	105,602	261,727	422,823	681,904	829,210
Vermont	85,425	154,465	217,895	235,981	280,652	291,948
Virginia	747,610	880,200	974,600	1,065,366	1,211,405	1,239,797
Wisconsin						30,945
State	1850	1860	1870	1880	1890	1900
Alabama	771,623	964,201	996,992	1,262,505	1,513,401	1,828,697
Arizona			9,658	40,440	88,243	122,931
Arkansas	209,897	435,450	484,471	802,525	1,128,211	1,311,564
California	92,597	379,994	560,247	864,694	1,213,398	1,485,053
Colorado		34,277	39,864	194,327	413,249	539,700
Connecticut	370,792	460,147	537,454	622,700	746,258	908,420
Delaware	91,532	112,216	125,015	146,608	168,493	184,735
D. C.	51,687	75,080	131,700	177,624	230,392	278,718
Florida	87,445	140,424	187,748	269,493	391,422	528,542
Georgia	906,185	1,057,286	1,184,109	1,542,180	1,837,353	2,216,331
Idaho			14,999	32,610	88,548	161,772
Illinois	851,470	1,711,951	2,539,891	3,077,871	3,826,352	4,821,550
Indiana	988,416	1,350,428	1,680,637	1,978,301	2,192,404	2,516,462
Iowa	192,214	674,913	1,194,020	1,624,615	1,912,297	2,231,853
Kansas		107,206	364,399	996,096	1,428,108	1,470,495
Kentucky	982,405	1,155,684	1,321,011	1,648,690	1,858,635	2,147,174
Louisiana	517,762	708,002	726,915	939,946	1,118,588	1,381,625
Maine	583,169	628,279	626,915	648,936	661,086	694,466
Maryland	583,034	687,049	780,894	934,943	1,042,390	1,188,044
Massachusetts	994,514	1,231,066	1,457,351	1,783,085	2,238,947	2,805,346
Michigan	397,654	749,113	1,184,059	1,636,937	2,093,890	2,420,982
Minnesota	6,077	172,023	439,706	780,773	1,310,283	1,751,394
Mississippi	606,526	791,305	827,922	1,131,597	1,289,600	1,551,270
Missouri	682,044	1,182,012	1,721,295	2,168,380	2,679,185	3,106,665
Montana			20,595	39,159	142,924	243,329
Nebraska		28,841	122,993	452,402	1,062,656	1,066,300
Nevada		6,857	42,491	62,266	47,355	42,355
New Hampshire	317,976	326,073	318,300	346,991	376,530	411,588
New Jersey	489,555	672,035	906,096	1,131,116	1,444,933	1,883,669
New Mexico	61,547	93,516	91,874	119,565	160,282	195,310
New York	3,097,394	3,880,735	4,382,759	5,082,871	6,003,174	7,268,894
North Carolina	869,039	992,622	1,071,361	1,399,750	1,617,949	1,893,810
North Dakota*			2,405	36,909	190,983	319,146

State	1850	1860	1870	1880	1890	1900
Ohio	1,980,329	2,339,511	2,665,260	3,198,062	3,672,329	4,157,545
Oklahoma					258,657†	790,391†
Oregon	13,294	52,465	90,923	174,768	317,704	413,536
Pennsylvania	2,311,786	2,906,215	3,521,951	4,282,891	5,258,113	6,302,115
Rhode Island	147,545	174,620	217,353	276,531	345,506	428,556
South Carolina	668,507	703,708	705,606	995,577	1,151,149	1,340,316
South Dakota*		4,837	11,776	98,268	348,600	401,570
Tennessee	1,002,717	1,109,801	1,258,520	1,542,359	1,767,518	2,020,616
Texas	212,592	604,215	818,579	1,591,749	2,235,527	3,048,710
Utah	11,380	40,273	86,786	143,963	210,779	276,749
Vermont	314,120	315,098	330,551	332,286	332,422	343,641
Virginia	1,421,661	1,596,318	1,225,163	1,512,565	1,655,980	1,854,184
Washington		11,594	23,955	75,116	357,232	518,103
West Virginia			442,014	618,457	762,794	958,800
Wisconsin	305,391	775,881	1,054,670	1,315,497	1,693,330	2,069,042
Wyoming			9,118	20,789	62,555	92,531

State	1910	Rank	1920	Rank	1930	Rank	1940	Rank	1950	Rank
Alabama	2,138,093	18	2,348,174	18	2,646,248	15	2,832,961	17	3,061,743	17
Arizona	204,354	45	334,162	43	435,573	43	499,261	43	749,587	37
Arkansas	1,574,449	25	1,752,204	25	1,854,482	25	1,949,387	24	1,909,511	30
California	2,377,549	12	3,426,861	8	5,677,251	6	6,907,387	5	10,586,223	2
Colorado	799,024	32	939,629	33	1,035,791	33	1,123,296	33	1,325,089	34
Connecticut	1,114,756	31	1,380,631	29	1,606,903	29	1,709,242	31	2,007,280	28
Delaware	202,322	46	223,003	46	238,380	46	266,505	46	318,085	46
D. C.	331,069	..	437,571	..	486,869	..	663,091	..	802,178	..
Florida	752,619	33	968,470	32	1,468,211	31	1,897,414	27	2,771,305	20
Georgia	2,609,121	10	2,895,832	12	2,908,506	14	3,123,723	14	3,444,578	13
Idaho	325,594	44	431,866	42	445,032	42	524,873	42	588,637	43
Illinois	5,638,591	3	6,485,280	3	7,630,654	3	7,897,241	3	8,712,176	4
Indiana	2,700,876	9	2,930,390	11	3,238,503	11	3,427,966	12	3,934,224	12
Iowa	2,224,771	15	2,404,021	16	2,470,939	19	2,538,268	20	2,621,073	22
Kansas	1,690,949	22	1,769,257	24	1,880,939	24	1,801,028	29	1,905,299	31
Kentucky	2,289,905	14	2,416,630	15	2,614,589	17	2,845,627	16	2,944,806	19
Louisiana	1,656,388	24	1,798,509	22	2,101,593	22	2,363,880	21	2,683,516	21
Maine	742,371	34	768,014	35	797,423	35	847,226	35	913,774	35
Maryland	1,295,346	27	1,449,661	28	1,631,526	28	1,821,244	28	2,343,001	24
Massachusetts	3,366,416	6	3,852,356	6	4,249,614	8	4,316,721	8	4,690,514	9
Michigan	2,810,173	8	3,668,412	7	4,842,325	7	5,256,106	7	6,371,766	7
Minnesota	2,075,708	19	2,387,125	17	2,563,953	18	2,792,300	18	2,982,483	18
Mississippi	1,797,114	21	1,790,618	23	2,009,821	23	2,183,796	23	2,178,914	26
Missouri	3,293,335	7	3,404,055	9	3,629,367	10	3,784,664	10	3,954,653	11
Montana	376,053	40	548,889	39	537,606	39	559,456	39	591,024	42
Nebraska	1,192,214	29	1,296,372	31	1,377,963	32	1,315,834	32	1,325,510	33
Nevada	71,875	48	77,407	48	91,053	48	110,247	28	160,083	48
New Hampshire	430,572	39	443,083	41	465,293	41	491,524	44	533,242	44
New Jersey	2,537,167	11	3,155,900	10	4,041,334	9	4,160,165	9	4,835,329	8
New Mexico	327,301	43	380,350	43	423,317	44	531,818	41	681,187	39
New York	9,113,614	1	10,385,227	1	12,588,066	1	13,479,142	1	14,830,192	1
North Carolina	2,206,287	16	2,559,123	14	3,170,276	12	3,571,623	11	4,061,929	10
North Dakota	577,056	37	646,872	36	680,845	38	641,935	38	619,636	41
Ohio	4,767,121	4	5,759,394	4	6,646,697	4	6,907,612	4	7,946,627	5
Oklahoma	1,657,155	23	2,028,283	21	2,396,040	21	2,336,434	22	2,233,351	25
Oregon	672,765	35	783,389	34	953,786	34	1,089,684	34	1,521,341	32
Pennsylvania	7,665,111	2	8,720,017	2	9,631,350	2	9,900,180	2	10,498,012	3
Rhode Island	542,610	38	604,397	38	687,497	37	713,346	36	791,896	36
South Carolina	1,515,400	26	1,683,724	26	1,738,765	26	1,899,804	26	2,117,027	27
South Dakota	583,888	36	636,547	37	692,849	36	642,961	37	652,740	40
Tennessee	2,184,789	17	2,337,885	19	2,616,556	16	2,915,841	15	3,291,718	16
Texas	3,896,542	5	4,663,228	5	5,824,715	5	6,414,824	6	7,711,194	6
Utah	373,351	41	449,396	40	507,847	40	550,310	40	688,862	38
Vermont	355,956	42	352,428	44	359,611	45	359,231	45	377,747	45
Virginia	2,061,612	20	2,309,187	20	2,421,851	20	2,677,773	19	3,318,680	15
Washington	1,141,990	30	1,356,621	30	1,563,396	30	1,736,191	30	2,378,963	23
West Virginia	1,221,119	28	1,463,701	27	1,729,205	27	1,901,974	25	2,005,552	29
Wisconsin	2,333,860	13	2,632,067	13	2,939,006	13	3,137,518	13	3,434,575	14
Wyoming	145,965	47	194,402	47	225,565	47	250,742	47	290,529	47

* 1860 figure under South Dakota is for Dakota Territory; 1870 and 1880 figures under North and South Dakota are for parts of Territory which later constituted respective states. † Includes population of Indian Territory: 1890, 180,182; 1900, 392,060.

Population by Race, 1950

Source: U. S. Bureau of the Census.

State	Native white	Foreign-born white	Negro	Indian	Japanese	Chinese
Alabama.....	2,065,778	13,813	979,617	928	88	187
Arizona.....	608,917	45,594	25,874	65,761	780	1,951
Arkansas.....	1,472,218	9,289	426,639	533	113	592
California.....	8,929,840	985,333	462,172	19,947	84,956	58,324
Colorado.....	1,237,666	58,987	20,177	1,567	5,412	458
Connecticut.....	1,654,470	297,859	53,472	333	254	450
Delaware.....	260,034	13,844	43,598	.....	14	85
D. C.....	478,368	39,497	280,803	330	353	1,825
Florida.....	2,043,320	122,731	603,101	1,011	238	429
Georgia.....	2,363,847	16,730	1,062,762	333	128	511
Idaho.....	561,988	19,407	1,050	3,800	1,980	244
Illinois.....	7,262,781	783,277	645,980	1,443	11,646	4,207
Indiana.....	3,657,882	100,630	174,168	438	318	496
Iowa.....	2,514,964	84,582	19,692	1,084	310	310
Kansas.....	1,790,384	38,577	73,158	2,381	116	315
Kentucky.....	2,726,022	16,068	201,921	234	74	335
Louisiana.....	1,767,799	23,884	882,428	409	127	526
Maine.....	836,504	74,342	1,221	1,522	30	77
Maryland.....	1,870,535	84,440	385,972	314	289	795
Massachusetts.....	3,897,398	713,699	73,577	1,201	384	3,627
Michigan.....	5,314,090	603,735	442,296	7,000	1,517	1,619
Minnesota.....	2,743,466	210,231	14,022	12,533	1,049	720
Mississippi.....	1,180,318	8,314	986,494	2,502	62	1,011
Missouri.....	3,563,543	92,050	297,088	547	527	519
Montana.....	528,919	43,119	1,232	16,606	524	209
Nebraska.....	1,244,055	57,273	19,234	3,954	619	202
Nevada.....	139,378	10,530	4,302	5,025	382	281
New Hampshire.....	474,141	58,134	731	74	25	93
New Jersey.....	3,890,824	639,761	318,565	621	1,784	1,818
New Mexico.....	612,875	17,336	8,408	41,901	251	166
New York.....	11,371,666	2,500,429	918,191	10,640	3,893	20,171
North Carolina.....	2,966,987	16,134	1,047,353	3,742	98	345
North Dakota.....	559,216	49,232	257	10,766	61	82
Ohio.....	6,985,064	443,158	513,072	1,146	1,986	1,542
Oklahoma.....	2,013,620	18,906	145,503	53,769	137	397
Oregon.....	1,413,516	83,612	11,529	5,820	3,660	2,102
Pennsylvania.....	9,077,239	776,609	638,485	1,141	1,029	2,258
Rhode Island.....	663,751	113,264	13,903	385	25	403
South Carolina.....	1,285,902	7,503	822,077	554	34	101
South Dakota.....	597,737	30,767	727	23,344	56	44
Tennessee.....	2,745,192	15,065	530,603	339	104	230
Texas.....	6,449,889	276,645	977,458	2,736	957	2,435
Utah.....	647,065	29,844	2,729	4,201	4,452	335
Vermont.....	348,435	28,753	443	30	14	34
Virginia.....	2,546,485	35,070	734,211	1,056	193	565
Washington.....	2,125,495	191,001	30,691	13,816	9,694	3,408
West Virginia.....	1,855,696	34,586	114,867	160	46	99
Wisconsin.....	3,174,456	218,234	28,182	12,196	529	590
Wyoming.....	270,719	13,290	2,557	3,237	450	106
Totals.....	124,780,454	10,161,168	15,042,692	343,410	141,768	117,629

Cases of Single and Plural Births, U. S., 1949

Source: Federal Security Agency, Public Health Service.

Cases of births	Under 15		Age of mother		50 & over		Not stated	Total cases
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Single births.....	4,968	427,970	1,136,179	985,779	565,694	282,205	72,378	4,979
Twins.....	25	2,600	9,492	10,835	7,900	4,571	967	37
Triplets.....	...	18	56	95	7	53	17	1
Quadruplets.....	...	...	...	2	1	...	...	...
Total cases.....	4,993	430,588	1,145,727	996,711	573,692	286,829	73,362	5,017

NOTE: "Cases" refer to confinements resulting in either a single or plural issue. Only those cases in which at least one child was born alive are included.

Population for Urban and Rural Groups, 1930-50

Source: U. S. Bureau of the Census.

Under the urban definition established for the 1950 Census, the urban population comprised all persons living in (a) places of 2,500 inhabitants or more, incorporated as cities, boroughs, towns (except in New England, New York and Wisconsin, where "towns" are minor civil divisions of counties and are not necessarily densely settled centers), and villages; (b) the densely settled urban fringe, including both incorporated and unincorporated areas, around cities of 50,000 or more; and (c) unincorporated places of 2,500 inhabitants or more, outside any urban fringe. The remaining population is classified as rural. According to the urban definition used in previous censuses, the urban population comprised all persons living in incorporated places of 2,500 inhabitants or more and areas (usually minor civil divisions) classified as urban under special rules relating to population size and density.

Type of place by population	1930		1940		1950	
	Number of places	Population	Number of places	Population	Number of places	Population
Urban territory.....	3,165	68,954,823	3,464	74,423,702	3,883	86,550,941
1,000,000 or more.....	5	15,064,555	5	15,910,866	5	17,484,450
500,000-1,000,000.....	8	5,763,987	9	6,456,959	13	9,186,945
250,000- 500,000.....	24	7,956,228	23	7,827,514	23	8,241,560
100,000- 250,000.....	56	7,540,966	55	7,792,560	65	9,478,662
50,000- 100,000.....	98	6,491,448	107	7,343,917	126	8,930,823
25,000- 50,000.....	185	6,425,693	213	7,417,093	249	8,710,867
10,000- 25,000.....	606	9,097,200	665	9,966,898	752	11,515,155
5,000- 10,000.....	851	5,897,156	965	6,681,894	1,093	7,569,509
2,500- 5,000.....	1,332	4,717,590	1,422	5,025,911	1,557	5,512,970
Rural territory.....		53,820,223		57,245,573		64,146,420
1,000-2,500 (Incorporated).....	3,087	4,820,707	3,205	5,026,834	3,408	5,382,637
Under 1,000 (Incorporated).....	10,346	4,362,746	10,083	4,315,843	9,826	4,129,049
Unincorporated territory.....		44,636,770		47,902,896		54,634,734
Total United States.....		122,775,046		131,669,275		150,697,361

U. S. Population 21 Years Old and Over, 1950

Source: U. S. Bureau of the Census.

State	Males	Females	Total	State	Males	Females	Total
Alabama.....	843,927	903,832	1,747,759	Nebraska.....	431,142	429,249	860,391
Arizona.....	223,303	218,586	441,889	Nevada.....	57,810	49,363	107,173
Arkansas.....	550,158	562,708	1,112,866	New Hampshire.....	171,020	181,760	352,780
California.....	3,569,206	3,642,619	7,211,825	New Jersey.....	1,628,358	1,725,802	3,354,160
Colorado.....	420,846	423,902	844,748	New Mexico.....	192,582	182,805	375,387
Connecticut.....	670,521	711,852	1,382,373	New York.....	4,994,060	5,380,386	10,374,446
Delaware.....	103,149	107,769	210,918	North Carolina.....	1,130,024	1,181,047	2,311,071
D. C.....	268,844	314,494	583,338	North Dakota.....	194,439	172,151	366,590
Florida.....	887,957	935,556	1,823,513	Ohio.....	2,586,095	2,693,666	5,279,761
Georgia.....	964,109	1,044,719	2,008,828	Oklahoma.....	682,993	699,115	1,382,108
Idaho.....	181,675	167,341	349,016	Oregon.....	509,726	491,990	1,001,716
Illinois.....	2,925,046	3,033,555	5,958,601	Pennsylvania.....	3,408,977	3,588,242	6,997,219
Indiana.....	1,261,119	1,295,348	2,556,467	Rhode Island.....	259,666	278,458	538,124
Iowa.....	840,331	854,288	1,694,619	South Carolina.....	554,085	596,782	1,150,867
Kansas.....	616,047	626,494	1,242,541	South Dakota.....	209,349	191,797	401,146
Kentucky.....	864,430	878,548	1,742,978	Tennessee.....	961,147	1,017,401	1,978,548
Louisiana.....	770,580	816,565	1,587,145	Texas.....	2,351,820	2,385,405	4,737,225
Maine.....	283,509	293,331	576,840	Utah.....	196,181	193,662	389,843
Maryland.....	752,882	774,207	1,527,089	Vermont.....	116,599	120,953	237,552
Massachusetts.....	1,520,510	1,685,594	3,206,104	Virginia.....	1,011,519	1,013,820	2,025,339
Michigan.....	2,066,908	2,039,698	4,106,606	Washington.....	799,604	759,662	1,559,266
Minnesota.....	958,369	951,784	1,910,153	West Virginia.....	587,373	584,505	1,171,878
Mississippi.....	587,284	620,739	1,208,023	Wisconsin.....	1,112,677	1,109,746	2,222,423
Missouri.....	1,281,239	1,361,890	2,643,129	Wyoming.....	96,131	82,450	178,581
Montana.....	198,368	173,977	372,345	Total U. S.....	47,853,694	49,549,613	97,403,307

By Census Divisions

New England.....	3,021,825	3,271,948	6,293,773	East South Central...	3,256,788	3,420,520	6,677,308
Middle Atlantic.....	10,031,395	10,694,430	20,725,825	West South Central...	4,355,551	4,463,793	8,819,344
East North Central...	9,951,845	10,172,013	20,123,858	Mountain.....	1,566,861	1,492,086	3,058,982
West North Central...	4,530,916	4,587,653	9,118,569	Pacific.....	4,878,536	4,894,271	9,772,807
South Atlantic.....	6,259,942	6,552,899	12,812,841				

Number of Villages, Towns, and Cities in the United States, 1952

Source: Buckley-Dement Advertising Corporation, Chicago.

State	Under 1,000	Population							Over 100,000	Total
		1,000 to 2,000	2,000 to 3,000	3,000 to 5,000	5,000 to 10,000	10,000 to 25,000	25,000 to 50,000	50,000 to 100,000		
Alabama.....	3,000	70	27	28	27	12	3	1	3	3,171
Arizona.....	855	18	7	12	13	1	1	...	1	908
Arkansas.....	2,535	51	25	21	18	6	4	...	1	2,661
California.....	4,620	111	64	66	49	80	16	11	7	5,024
Colorado.....	2,140	40	16	12	11	7	1	1	1	2,229
Connecticut.....	680	28	17	6	9	20	13	2	4	779
Delaware.....	280	11	4	1	5	...	...	...	1	302
D. C.....	...	...	...	...	...	...	...	...	1	1
Florida.....	2,695	72	29	34	23	14	10	2	3	2,882
Georgia.....	3,300	99	34	43	21	14	4	3	2	3,520
Idaho.....	1,215	23	8	15	3	7	2	...	...	1,273
Illinois.....	3,840	198	77	71	79	46	14	10	2	4,337
Indiana.....	2,750	101	30	31	38	21	10	4	5	2,990
Iowa.....	1,840	109	31	32	27	10	8	4	1	2,062
Kansas.....	1,920	60	34	23	10	19	2	1	2	2,071
Kentucky.....	3,640	95	23	29	22	8	4	2	1	3,824
Louisiana.....	2,500	71	23	23	22	10	4	...	3	2,656
Maine.....	1,740	39	16	15	12	10	2	1	...	1,835
Maryland.....	1,900	40	15	11	7	8	2	...	1	1,984
Massachusetts.....	1,720	62	17	17	23	49	18	11	7	1,924
Michigan.....	3,050	133	49	38	38	36	8	7	3	3,362
Minnesota.....	2,160	110	53	26	31	15	3	...	3	2,401
Mississippi.....	2,480	58	19	21	13	7	6	1	...	2,605
Missouri.....	3,900	109	33	38	28	19	5	2	2	4,136
Montana.....	1,480	30	11	8	7	4	3	...	...	1,543
Nebraska.....	1,175	62	19	16	9	8	...	1	1	1,291
Nevada.....	530	9	4	5	2	1	1	...	...	552
New Hampshire.....	690	31	5	9	2	7	2	1	...	747
New Jersey.....	1,450	82	43	58	63	48	17	7	6	1,774
New Mexico.....	1,060	25	9	8	10	4	2	1	...	1,119
New York.....	5,230	184	54	79	61	44	16	6	9	5,683
North Carolina.....	3,300	107	40	35	27	20	5	5	1	3,540
North Dakota.....	970	42	6	1	6	4	2	...	...	1,031
Ohio.....	2,880	159	69	61	61	45	19	6	8	3,308
Oklahoma.....	1,770	67	35	22	24	17	4	...	2	1,941
Oregon.....	1,410	39	16	19	14	8	2	...	1	1,509
Pennsylvania.....	7,700	280	120	110	130	72	10	10	6	8,438
Rhode Island.....	290	10	3	1	2	10	3	3	1	323
South Carolina.....	1,920	68	26	29	27	6	1	3	...	2,080
South Dakota.....	810	31	10	5	7	4	1	1	...	869
Tennessee.....	3,110	64	18	24	24	11	3	...	4	3,258
Texas.....	6,375	185	97	74	78	48	6	9	7	6,879
Utah.....	1,125	40	12	12	12	1	1	1	1	1,205
Vermont.....	685	21	7	5	7	2	1	...	...	728
Virginia.....	5,500	64	27	22	22	10	5	3	3	5,656
Washington.....	1,865	54	26	19	12	13	5	...	3	1,997
West Virginia.....	3,310	119	37	18	15	6	4	3	...	3,512
Wisconsin.....	2,445	110	37	31	24	17	12	4	1	2,631
Wyoming.....	650	8	8	9	1	4	1	...	...	631
Total.....	112,490	3,599	1,390	1,293	1,176	833	266	127	103	121,232

NOTE: This table based on 1950 Census of population, final data.

Families in the U. S., by Size, 1951

Source: U. S. Bureau of the Census.

Size of family	Husband-wife	Other	Total	Size of family	Husband-wife	Other	Total
2 persons.....	10,714,000	2,370,000	13,084,000	6 persons.....	1,920,000	216,000	2,136,000
3 persons.....	8,582,000	1,402,000	9,984,000	7 or more.....	1,784,000	172,000	1,956,000
4 persons.....	7,518,000	710,000	8,228,000	Total families....	34,556,000	5,266,000	39,822,000
5 persons.....	4,038,000	396,000	4,434,000				

Death by Selected Causes, 1949-50

(Excludes fetal deaths and deaths among armed forces overseas.)

Cause of death	1949		1950 ¹	
	Deaths	Rate ²	Deaths	Rate ²
Tuberculosis, all forms.....	39,100	26.3	33,633	22.2
Syphilis and its sequelae.....	8,581	5.8	8,008	5.3
Typhoid fever.....	161	0.1	90	0.1
Dysentery, all forms.....	1,440	1.0	1,020	0.7
Diphtheria.....	574	0.4	432	0.3
Whooping cough.....	727	0.5	1,168	0.8
Meningococcal infections.....	917	0.6	981	0.6
Acute poliomyelitis.....	2,720	1.8	1,686	1.1
Measles.....	949	0.6	415	0.3
Malignant neoplasms, etc. (principally cancer).....	206,325	138.9	211,090	139.6
Diabetes mellitus.....	25,089	16.9	25,076	16.6
Nonmeningococcal meningitis.....	2,147	1.4	2,045	1.4
Major cardiovascular-renal diseases.....	746,434	502.5	770,699	509.6
Diseases of cardiovascular system.....	720,499	485.0	745,132	492.7
Vascular lesions of central nervous system.....	149,953	100.9	156,513	103.5
Rheumatic fever.....	2,304	1.6	2,187	1.4
Diseases of heart.....	518,568	349.1	535,920	354.4
Hypertension ³	42,625	28.7	43,002	28.4
Chronic nephritis, etc.....	25,935	17.5	25,567	16.9
Influenza and pneumonia, etc.....	44,640	30.0	47,093	31.1
Ulcer of stomach and duodenum.....	7,809	5.3	8,053	5.3
Gastritis, duodenitis, enteritis, etc.....	9,970	6.7	7,437	4.9
Cirrhosis of liver.....	13,694	9.2	13,058	8.6
Acute nephritis, etc.....	3,597	2.4	3,562	2.4
Complications of pregnancy, etc.....	3,216	2.2	2,567	1.7
Congenital malformations.....	18,864	12.7	18,419	12.2
Senility, etc., and ill-defined conditions.....	23,520	15.8	26,146	17.3
Motor-vehicle accidents.....	31,701	21.3	33,577	22.2
All other accidents.....	58,405	39.3	57,043	37.7
Suicide.....	16,993	11.4	17,179	11.4
Homicide.....	8,033	5.4	7,258	4.8

¹ Estimated figures. ² Per 100,000 estimated midyear population excluding armed forces overseas. ³ Without mention of heart and general arteriosclerosis. Source: Federal Security Agency, Public Health Service.

Population of U. S. by Color, Sex and Age, 1949 and 1950

Age	White males*		White females*		Nonwhite males*		Nonwhite females*	
	1949†	1950‡	1949†	1950‡	1949†	1950‡	1949†	1950‡
Under 5.....	7,113,000	7,335,000	6,781,000	7,053,000	955,000	983,000	956,000	970,000
5 to 9.....	5,977,000	5,974,000	5,709,000	5,703,000	888,000	851,000	879,000	713,000
10 to 14.....	4,928,000	4,932,000	4,742,000	4,926,000	748,000	748,000	743,000	755,000
15 to 19.....	4,777,000	4,674,000	4,638,000	4,759,000	664,000	628,000	673,000	672,000
20 to 24.....	5,275,000	4,840,000	5,244,000	5,189,000	676,000	617,000	690,000	681,000
25 to 29.....	5,344,000	5,303,000	5,504,000	5,495,000	630,000	621,000	679,000	674,000
30 to 34.....	4,957,000	5,220,000	5,205,000	5,314,000	547,000	515,000	638,000	552,000
35 to 39.....	4,789,000	4,901,000	4,947,000	5,106,000	518,000	575,000	589,000	611,000
40 to 44.....	4,441,000	4,530,000	4,525,000	4,513,000	451,000	499,000	495,000	516,000
45 to 49.....	4,065,000	4,131,000	4,122,000	4,042,000	430,000	389,000	476,000	428,000
50 to 54.....	3,705,000	3,686,000	3,749,000	3,882,000	345,000	350,000	357,000	356,000
55 to 59.....	3,381,000	3,344,000	3,400,000	3,353,000	278,000	264,000	282,000	269,000
60 to 64.....	2,803,000	2,830,000	2,824,000	2,753,000	214,000	199,000	202,000	168,000
65 to 69.....	2,036,000	2,155,000	2,142,000	2,471,000	154,000	209,000	140,000	225,000
70 to 74.....	1,421,000	1,488,000	1,585,000	1,709,000	104,000	122,000	101,000	106,000
75 and over.....	1,506,000	1,636,000	1,814,000	1,986,000	124,000	101,000	144,000	114,000
Total.....	66,516,000	66,961,000	66,930,000	68,254,000	7,726,000	7,672,000	8,043,000	7,810,000
14 and over.....	49,448,000	49,673,000	50,617,000	51,508,000	5,275,000	5,250,000	5,605,000	5,483,000
21 and over.....	42,697,000	43,144,000	44,061,000	44,851,000	4,336,000	4,355,000	4,655,000	4,568,000
Median age**.....	29.9	30.4	30.8	30.9	24.5	25.1	25.6	25.8

* Including armed forces overseas. † As of July 1. Estimates are rounded to nearest thousand without being adjusted to group totals, which are independently rounded. ‡ 1950 Census (preliminary figures). ** Based on unrounded absolute figures. Source: U. S. Bureau of the Census.

A Brief Summary of Naturalization Requirements and Procedure

Source: Immigration and Naturalization Service.

The right of a person to become a naturalized citizen of the U. S. shall not be abridged because of race or sex or because that person is married.

Generally, an applicant for naturalization must have been lawfully admitted to the U. S. for permanent residence. Further, he must have resided continuously in the U. S. for the number of years required by law. For an unmarried applicant, that is 5 years; and for the last 6 months of that period, he must have resided in the state where he will apply for naturalization. For husbands and wives of citizens of the U. S., the required residence is 3 years, during all of which time the applicant's spouse must have been a citizen and must have been living in marital union with the applicant.

An applicant must demonstrate an understanding of the English language, including an ability to read, write and speak words in ordinary usage in English—unless physically unable to do so, or unless, on Dec. 24, 1952, he was over 50 years of age and had been living in the U. S. at least 20 years.

An alien 18 years of age or over may file a petition for naturalization. Before doing so, however, he must make preliminary application on Form N-400. Thereafter, he is notified by the Immigration and Naturalization Service when and where to appear with his witnesses for preliminary interrogation, and to file petition for naturalization. The applicant and his witnesses are questioned by an examiner, and if he meets the requirements, the examiner assists him in filing a petition for naturalization. This petition must be filed by the petitioner with the clerk of the court in the jurisdiction in which he re-

sides. The fee is \$10. After the filing of the petition and after further examination, the petitioner is told he will be notified by mail when to appear in the naturalization court for final hearing.

If the petition is granted, the petitioner must renounce allegiance to any foreign state of which he is a citizen or subject, and swear allegiance to the U. S. If the Immigration and Naturalization Service recommends that the petition for naturalization be denied, the petitioner may request the court to review his case.

Under legislation effective Dec. 24, 1953, it is no longer necessary to file a declaration of intention (commonly known as a first paper) before filing a petition for naturalization. However, an alien, over 18 years of age and residing in the U. S. pursuant to a lawful admission for permanent residence, may file a declaration of intention. Thus, an alien who may not be ready for naturalization because, for example, he has not completed the required period of residence, may show his intention of becoming a citizen. Application for declaration of intention must be made on Form N-300; and after the application has been approved by the Immigration and Naturalization Service, the applicant is notified to appear before a clerk of the court to make and file a declaration of intention. The fee is \$5.

The foregoing is confined to general types of naturalization. There are also several special classes of naturalization, such as that of children, former citizens of the U. S., etc., for which the requirements and procedure may vary. Additional information is available at all offices of the Immigration and Naturalization Service.

Naturalization Statistics Since 1907

Period	Declarations filed	Petitions filed			Persons naturalized		
		Civilian	Military	Total	Civilian	Military	Total
1907 to 1910.....	526,322			164,036	111,738	.....	111,738
1911 to 1920.....	2,686,909	1,137,084	244,300	1,381,384	884,672	244,300	1,128,972
1921 to 1930.....	2,709,014	1,827,073	57,204	1,884,277	1,716,979	56,206	1,773,185
1931 to 1940.....	1,369,479	1,612,411	24,702	1,637,113	1,498,573	19,891	1,518,464
1941 to 1950.....	920,284			1,938,066	1,837,229	149,799*	1,987,028
1941.....	224,123			277,807	275,747	1,547	277,294
1942.....	221,796	341,979	1,508	343,487	268,762	1,602	270,364
1943.....	115,664	338,885	38,240	377,125	281,459	37,474*	318,933
1944.....	42,368	275,486	50,231	325,717	392,766	49,213*	441,979
1945.....	31,195	172,905	23,012	195,917	208,707	22,695*	231,402
1946.....	28,787	110,071	13,793	123,864	134,849	15,213*	150,062
1947.....	37,771	70,767	18,035	88,802	77,442	16,462*	93,904
1948.....	60,187			68,265	69,080	1,070	70,150
1949.....	64,866			71,044	64,138	2,456	66,594
1950.....	93,527			66,038	64,279	2,067	66,346
1951.....	91,497			61,634	53,741	975	54,716
1907 to 1951.....	8,303,505			7,066,510	6,102,932	471,171	6,574,103

* Members of the armed forces include 1,425 naturalized overseas in 1943; 6,496 in 1944; 5,606 in 1945; 2,054 in 1946; and 5,370 in 1947. Total: 21,011.

Immigration by Country of Origin, 1820 to 1951

Source: Immigration and Naturalization Service.

(Figures are totals, not annual averages, and were tabulated as follows: 1820-67, alien passengers arrived; 1868-91 and 1895-97, immigrant aliens arrived; 1892-94 and 1898 to present, immigrant aliens admitted. Data before 1906 relate to country whence alien came; since 1906, to country of last permanent residence.)

Countries	1820-1910	1911-1920	1921-1930	1931-1940	1941-1950	1951	1820-1951
Europe: Albania ¹			1,663	2,040	85	7	3,795
Austria ²	3,172,461	453,649	32,868	3,563	24,860	9,761	4,181,927
Belgium	103,796	33,746	15,846	4,817	12,189	1,802	172,196
Bulgaria ³	39,440	22,533	2,945	938	375	1	66,232
Czechoslovakia ⁴		3,426	102,194	14,393	8,347	88	128,448
Denmark	258,053	41,983	32,430	2,559	5,393	1,076	341,494
Estonia ¹			1,576	506	212		2,294
Finland ¹		756	16,691	2,146	2,503	532	22,628
France	470,868	61,897	49,610	12,623	38,809	4,573	638,380
Germany ²	5,351,746	143,945	412,202	114,058	226,578	87,755	6,336,284
Great Britain: England	2,212,071	249,944	157,420	21,756	112,252	12,393	2,765,836
Scotland	488,749	78,357	159,781	6,887	16,131	2,309	752,214
Wales	59,540	13,107	13,012	735	3,209	196	89,799
Not specified ⁴	793,741						793,741
Greece	186,204	184,201	51,084	9,119	8,973	4,459	444,404
Hungary ³		442,693	30,680	7,861	3,469	62	4,181,927
Ireland	4,212,169	146,181	220,591	13,167	25,377	3,144	4,622,219
Italy	3,086,356	1,109,524	455,315	68,028	57,661	8,958	4,785,842
Latvia ¹			3,399	1,192	361	5	4,957
Lithuania ¹			6,015	2,201	683	8	8,907
Luxemburg ⁴			727	565	820	51	2,163
Netherlands	175,943	43,718	26,948	7,150	14,860	3,062	271,581
Norway ⁵	665,189	66,395	68,531	4,740	10,100	2,289	817,244
Poland ⁶	165,182	4,813	227,734	17,026	7,571	98	422,424
Portugal	132,989	89,732	29,994	3,329	7,423	1,078	264,545
Rumania ⁷	72,117	13,311	67,646	3,871	1,076	104	158,125
Spain	69,296	68,611	28,958	3,258	2,898	442	173,463
Sweden ⁸	1,021,165	95,074	97,249	3,960	10,665	2,022	1,230,135
Switzerland	237,401	23,091	29,676	5,512	10,547	1,485	307,712
Turkey in Europe	85,800	54,677	14,659	737	580	118	156,571
U.S.S.R. ⁹	2,359,048	921,201	61,742	1,356	548	10	3,343,905
Yugoslavia ⁹		1,888	49,064	5,835	1,576	454	58,817
Other Europe	2,605	8,111	9,603	2,361	5,573	1,203	27,866
Total Europe	25,421,929	4,376,564	2,477,853	348,289	621,704	149,545	33,395,884
Asia: China	326,060	21,278	29,907	4,928	16,709	335	399,217
India	5,409	2,082	1,886	496	1,761	109	11,743
Japan ⁹	158,344	83,837	33,462	1,948	1,555	271	279,417
Turkey in Asia ¹⁰	106,481	79,389	19,165	328	218	3	205,584
Other Asia	16,942	5,973	12,980	7,644	11,537	3,203	58,279
Total Asia	613,236	192,559	97,400	15,344	31,780	3,921	954,240
America: Canada & Newfoundland ¹¹	1,230,501	742,185	924,515	108,527	171,718	25,880	3,203,236
Central America	10,365	17,159	15,769	5,861	21,665	2,011	72,830
Mexico ¹²	77,645	219,004	459,287	22,319	60,589	6,153	844,997
South America	29,385	41,899	42,215	7,803	21,831	3,596	146,729
West Indies	233,146	123,424	74,899	15,502	49,725	5,902	502,598
Other America ¹³			31	25	29,276	4,089	33,421
Total America	1,581,042	1,143,671	1,516,716	160,037	354,804	47,631	4,803,901
Africa	9,581	8,443	6,286	1,750	7,367	845	34,272
Australia & New Zealand	31,654	12,348	8,299	2,231	13,805	490	68,827
Pacific Islands	8,859	1,079	427	780	5,437	3,265	19,847
Countries not specified	252,691 ¹⁴	1,147	228		142	20	254,228 ¹⁴
Total all countries	27,918,992	5,735,811	4,107,209	528,431	1,035,039	205,717	39,531,199

¹ Countries established since beginning of World War I are therefore included with countries to which they be longed. ² Data for Austria-Hungary not reported until 1861. Austria and Hungary recorded separately after 1905. Austria included with Germany 1938-45. ³ Bulgaria, Serbia, Montenegro first reported in 1899. Bulgaria reported separately since 1920. In 1920, separate enumeration for Kingdom of Serbs, Croats, Slovenes; since 1922, recorded as Yugoslavia. ⁴ For United Kingdom. ⁵ Norway included with Sweden 1820-93. ⁶ Included with Austria-Hungary, Germany and Russia 1899-1919. ⁷ No record of immigration until 1830. ⁸ Since 1931, U.S.S.R. has been broken down into European Russia and Siberia or Asiatic Russia. ⁹ No record of immigration until 1861. ¹⁰ No record of immigration until 1869. ¹¹ Includes all British North American possession 1820-98. ¹² No record of immigration 1866-93. ¹³ Included with "Countries not specified" prior to 1925. ¹⁴ Includes 32,597 persons returning in 1906 to their homes in U. S.

U. S. Foreign-born Population by Country of Birth

Source: U. S. Bureau of the Census.

Country of birth	Total foreign-born 1900	1910	1920	Foreign-born white 1930	1940	1950 ¹
Northwestern Europe						
England.....	840,513	876,455	812,823	808,684	621,975	584,615 ²
Scotland.....	233,524	261,034	254,567	354,323	279,321	244,200
Wales.....	93,586	82,479	67,066	60,205	35,360	(³)
Northern Ireland.....	1,615,459	1,352,155	1,037,233	178,832	106,416	15,398
Ireland (Eire).....				744,810	572,031	504,961
Norway.....	336,388	403,858	363,862	347,852	262,088	202,294
Sweden.....	582,014	665,183	625,580	595,250	445,070	324,944
Denmark.....	153,690	181,621	189,154	179,474	138,175	107,897
Iceland.....				2,764	2,104	.....
Netherlands.....	94,931	120,053	131,766	133,133	111,064	102,133
Belgium.....	29,757	49,397	62,686	64,194	53,958	52,891
Luxemburg.....	3,031	3,068	12,585	9,048	6,886	.....
Switzerland.....	115,593	124,834	118,659	113,010	88,293	71,515
France.....	104,197	117,236	152,890	135,265	102,930	107,924
Central Europe						
Germany.....	2,663,418	2,311,085	1,686,102	1,608,814	1,237,772	984,331
Poland.....	383,407	293,884	1,139,978	1,268,583	993,479	861,184
Czechoslovakia.....	.....	.....	362,436	491,638	319,971	278,268
Austria.....	432,798	284,506	575,625	370,914	479,906	408,785
Hungary.....	145,714	495,600	397,282	274,450	290,228	266,022
Yugoslavia.....	.....	.....	169,437	211,416	161,093	143,956
Eastern Europe						
U.S.S.R.....	423,726	218,382	1,400,489	1,153,624	1,040,884	894,844
Latvia.....				20,673	18,636	.....
Estonia.....	62,641	129,669	149,824	3,550	4,178	.....
Lithuania.....				135,068	193,606	165,771
Finland.....	15,032	65,920	102,823	142,478	117,210	95,506
Rumania.....	.....	11,453	10,477	146,393	115,940	84,952
Bulgaria.....	.....	.....	.....	9,399	8,888	.....
Turkey in Europe.....	2,251	32,221	5,284	2,257	4,412	.....
Southern Europe						
Greece.....	8,515	101,264	175,972	174,526	163,252	169,083
Italy.....	484,027	1,343,070	1,610,109	1,790,424	1,623,580	1,427,145
Spain.....	7,050	21,977	49,247	59,033	47,707	45,565
Portugal.....	30,608	57,623	67,453	69,993	62,347	54,337
Other Europe.....	2,251	212,851	11,509	25,065	19,819	86,375
Asia						
Palestine.....	(4)	259,702	3,202	6,135	7,047	.....
Syria.....			51,900	57,227	50,859	.....
Turkey in Asia.....			11,014	46,651	52,479	.....
Other Asia.....	120,248	4,612	44,334	47,567	39,524	(5)
America						
Canada-French.....	395,126	385,083	307,786	370,852	273,366	238,409
Canada-other.....	784,796	810,987	810,092	907,660	770,753	756,153
Newfoundland.....	(10)	5,076	13,242	23,971	21,361	.....
Mexico.....	103,393	219,802	478,383	639,017	377,433	450,562
Cuba.....	11,081	12,869	12,843	16,089	15,277	.....
Other West Indies.....	14,354	10,300	13,526	15,511	15,257	.....
Central America.....	3,897	1,507	4,074	7,791	7,638	(6)
South America.....	4,733	7,562	16,855	30,333	28,770	(7)
All other						
Australia.....	6,807	8,938	10,801	12,720	10,998	.....
Azores.....	9,768	15,795	33,788	35,432	25,751	.....
Other Atlantic islands.....			5,196	4,953	3,232	.....
Other and not reported.....	15,293	15,434	17,727	18,716	18,649	146,833
Total.....	10,341,276	13,345,545	13,712,754	13,983,405	11,419,138	10,161,168

¹ Provisional figures. ² Persons reported in 1910 as of Polish mother tongue born in Austria, Germany, and Russia have been deducted from their respective countries and combined as Poland. ³ Turkey in Asia included with Turkey in Europe prior to 1910. ⁴ Includes 4,635 persons born in Serbia and 5,363 persons born in Montenegro, which became part of Yugoslavia in 1918. ⁵ Turkey in Asia included Armenia, Palestine, and Syria in 1910. Subsequent to 1910 Armenia included with "Other Asia." ⁶ Includes Wales. ⁷ Included in figure for England. ⁸ All Asia, 180,024. ⁹ Other America, 120,297. ¹⁰ Newfoundland included with Canada in 1900.

Immigration to U. S., 1820 to 1951

Source: Immig. and Naturalization Service.

Year	No. of persons*	Year	No. of persons*	Year	No. of persons*	Year	No. of persons*
1820	8,385	1853	368,645	1886	334,203	1919	141,132
1821	9,127	1854	427,833	1887	490,109	1920	430,001
1822	6,911	1855	200,877	1888	546,889	1921	805,228
1823	6,354	1856	200,436	1889	444,427	1922	309,556
1824	7,912	1857	251,306	1890	455,302	1923	522,919
1825	10,199	1858	123,126	1891	560,319	1924	706,896
1826	10,837	1859	121,282	1892	579,663	1925	294,314
1927	18,875	1860	153,640	1893	439,730	1926	304,488
1828	27,382	1861	91,918	1894	285,631	1927	335,175
1829	22,520	1862	91,985	1895	258,536	1928	307,255
1830	23,322	1863	176,282	1896	343,267	1929	279,678
1831	22,633	1864	193,418	1897	230,832	1930	241,700
1832	60,482	1865	248,120	1898	229,299	1931	97,139
1833	58,640	1866	318,568	1899	311,715	1932	35,576
1834	65,365	1867	315,722	1900	448,572	1933	23,068
1835	45,374	1868	138,840	1901	487,918	1934	29,470
1836	76,242	1869	352,768	1902	648,743	1935	34,956
1837	79,340	1870	387,203	1903	857,046	1936	36,329
1838	38,914	1871	321,500	1904	812,870	1937	50,244
1839	68,069	1872	404,806	1905	1,026,499	1938	67,895
1840	84,066	1873	459,803	1906	1,100,735	1939	82,998
1841	80,289	1874	313,339	1907	1,285,349	1940	70,756
1842	104,565	1875	227,498	1908	782,870	1941	51,776
1843	52,496	1876	169,985	1909	751,786	1942	28,781
1844	78,615	1877	141,857	1910	1,041,570	1943	23,725
1845	114,371	1878	138,469	1911	878,587	1944	28,551
1846	154,416	1879	177,826	1912	838,172	1945	38,119
1847	234,968	1880	457,257	1913	1,197,892	1946	108,721
1848	226,527	1881	669,431	1914	1,218,480	1947	147,292
1849	297,024	1882	788,992	1915	326,700	1948	170,570
1850	369,980	1883	603,322	1916	298,826	1949	188,317
1851	379,466	1884	518,592	1917	295,403	1950	249,187
1852	371,603	1885	395,346	1918	110,618	1951	205,717

* From 1820-67, figures represent alien passengers arrived; 1868-91 and 1895-97, immigrant aliens arrived; 1892-94 and 1898 to present, immigrant aliens admitted.

Population of Territories and Possessions

Source: U. S. Bureau of the Census.

Area	1930	1940	1950
United States.....	122,775,046	131,669,275	150,697,361
Alaska.....	59,278	72,524	128,643
American Samoa.....	10,055	12,908	18,937
Canal Zone.....	39,467	51,827	52,822
Guam.....	18,509	22,290	59,498
Hawaii.....	368,336	423,330	499,794
Philippines ¹	13,513,000	16,356,000	.....
Puerto Rico.....	1,543,913	1,869,255	2,210,703
Virgin Is. of U. S.....	22,012	24,889	26,665
Total ²	138,349,616	150,502,298	153,694,423

¹ The Philippines became independent on July 4, 1946.
² Does not include armed forces overseas and the trust territory, acquired in 1947, of the Mariana, Caroline, and Marshall Islands.

One Accidental Death Every 5 Minutes in 1951

Source: National Safety Council.

The nation's 1951 accident totals can be figured at the following approximate rates:

Class of accident	One every
All accidents	Deaths 6 minutes Injuries 3 seconds
Motor-vehicle	Deaths 14 minutes Injuries 24 seconds
Occupational	Deaths 33 minutes Injuries 15 seconds
Workers off-job	Deaths 16 minutes Injuries 13 seconds
Home	Deaths 19 minutes Injuries 8 seconds
Public non-motor-vehicle	Deaths 35 minutes Injuries 17 seconds

Death Rates for Selected Causes, 1910-48

(Exclusive of fetal deaths. Rates per 100,000 estimated midyear population)

Source: Federal Security Agency, Public Health Service.

Cause	1910	1920	1930	1940 ¹	1948 ¹
Accidents ²	82.7 ^a	60.7 ^a	53.8	47.3	45.0
Appendicitis.....	10.8	13.2	15.2	9.9	2.9
Cancer ³	76.2	83.4	97.4	120.0	134.9
Cirrhosis of liver.....	13.3	7.1	7.2	8.6	11.3
Diabetes mellitus.....	15.3	16.1	19.1	26.5	26.5
Diphtheria.....	21.1	15.3	4.9	1.1	.4
Heart disease.....	158.9 ^b	159.6 ^b	214.2	292.0	322.8
Homicide.....	4.6	6.8	8.8	6.2	5.8
Influenza.....	14.2	70.5	19.4	15.3	3.5
Malaria.....	1.1	3.4	2.9	1.1	.1

Cause	1910	1920	1930	1940 ¹	1948 ¹
Mot.-veh. accidents.....	1.8 ^a	10.3 ^a	26.7	26.1	22.1
Nephritis.....	94.8	88.8	91.3	81.4	53.0
Pneumonia.....	141.7	136.8	83.1	54.9	35.2
Premature birth.....	37.7	43.6	31.5	24.5	26.8
Scarlet fever.....	11.4	4.6	1.9	.5	.0
Suicide.....	15.3	10.2	15.6	14.3	11.2
Syphilis.....	13.5	16.5	15.7	14.4	8.0
Tuberculosis.....	153.8	113.1	71.1	45.8	30.0
Typhoid ⁷	22.5	7.6	4.8	1.1	.2
Whooping cough.....	11.6	12.5	4.8	2.2	.8

¹ Excludes armed forces overseas. ² Other than motor-vehicle accidents. ³ Includes legal executions. ⁴ Includes other malignant tumors. ⁵ Excludes diseases of coronary arteries. ⁶ Excludes automobile collisions with trains and street cars, and motorcycle accidents. ⁷ Includes paratyphoid fever.

NOTE: Rates are for population in death-registration states: 1910—51.4% of U. S. population; 1920—80.9%; 1930—95.3%; 1940—48—100%.

Births and Deaths, by States, 1949-51

Source: Federal Security Agency, Public Health Service.

State	Births ¹			Deaths ¹		
	1949 ²	1950 ³	1951 ³	1949 ⁴	1950 ⁵	1951 ⁵
Alabama.....	84,418	82,233	83,300	26,750	26,619	27,226
Arizona.....	20,275	21,213	23,208	6,397	6,859	7,790
Arkansas.....	45,609	47,555	46,370	15,680	15,294	15,897
California.....	245,199	240,224	260,559	100,354	98,598	103,438
Colorado.....	32,984	33,838	36,500	12,582	12,533	13,020
Connecticut.....	40,887	39,384	41,753	18,829	18,889	19,624
Delaware.....	7,369	7,765	8,141	3,330	3,483	3,600
D. C.....	19,814	28,887	29,605	8,448	8,881	8,988
Florida.....	61,743	64,088	70,174	25,376	27,933	29,503
Georgia.....	93,259	91,808	95,198	29,608	30,603	31,052
Idaho.....	15,984	15,674	16,156	4,701	4,698	4,891
Illinois.....	189,313	184,232	195,778	92,568	90,564	91,510
Indiana.....	94,214	93,635	101,021	40,026	40,207	40,817
Iowa.....	61,871	63,796	67,342	26,106	27,156	26,482
Kansas.....	43,781	42,549	45,884	18,814	19,233	19,431
Kentucky.....	76,197	75,076	77,508	28,046	27,448	27,114
Louisiana.....	75,487	76,508	78,690	23,400	23,987	24,669
Maine.....	21,939	21,360	21,329	10,099	10,057	9,967
Maryland.....	53,597	51,286	55,714	22,110	22,849	23,169
Massachusetts.....	95,615	.....	.....	50,767	.....	.....
Michigan.....	157,178	158,961	171,628	57,422	57,393	58,957
Minnesota.....	73,929	74,897	79,565	27,719	28,267	28,190
Mississippi.....	66,415	64,567	66,913	20,661	20,499	20,941
Missouri.....	85,302	88,395	92,836	43,825	43,924	44,443
Montana.....	15,366	15,404	15,625	5,878	5,799	5,877
Nebraska.....	31,547	31,756	33,423	12,644	12,625	12,930
Nevada.....	3,673	3,821	4,213	1,610	1,654	1,881
New Hampshire.....	11,940	11,765	12,149	6,172	6,149	6,429
New Jersey.....	97,606	94,276	100,826	47,880	48,004	49,350
New Mexico.....	21,620	21,731	22,575	5,576	5,517	5,788
New York.....	301,287	302,776	318,340	155,020	156,114	158,399
North Carolina.....	107,970	107,129	114,193	31,009	31,326	31,910
North Dakota.....	16,846	17,137	17,206	5,222	5,179	5,036
Ohio.....	189,428	185,306	200,099	80,368	81,294	81,820
Oklahoma.....	49,702	50,027	50,940	19,394	18,900	19,720
Oregon.....	35,316	36,062	37,037	13,891	13,847	14,614
Pennsylvania.....	224,581	221,891	235,490	108,363	109,657	111,302
Rhode Island.....	16,492	16,964	18,077	8,081	8,262	8,185
South Carolina.....	58,516	57,949	61,734	17,494	18,143	17,683
South Dakota.....	17,211	18,532	18,520	5,687	5,971	5,798
Tennessee.....	82,854	82,772	85,127	28,993	30,433	30,668
Texas.....	202,297	203,249	217,090	63,337	63,359	67,295
Utah.....	21,164	21,534	22,853	4,929	5,042	5,224
Vermont.....	9,297	8,735	8,650	4,162	5,042	5,224
Virginia.....	82,960	78,003	82,640	29,345	29,594	29,487
Washington.....	56,542	57,012	59,211	22,491	22,570	23,436
West Virginia.....	52,586	50,653	51,728	17,305	17,344	17,180
Wisconsin.....	82,949	81,663	88,066	32,993	33,688	33,675
Wyoming.....	7,490	7,530	8,000	2,385	2,296	2,389
Total U. S.....	3,559,529	3,554,147 ⁶	3,758,006 ⁶	1,443,607	1,456,000 ⁶	1,486,000 ⁶

¹ Exclusive of stillbirths. ² Final figures, by place of residence. ³ Provisional figures, by place of occurrence; figures for Massachusetts not available. ⁴ Final figures, by place of residence; exclude deaths among armed forces overseas. ⁵ Final figure for entire U. S.; not sum of state figures. ⁶ Provisional figure for entire U. S.; not sum of state figures.

Live Births by Race, U. S., 1940-49

Source: Federal Security Agency, Public Health Service.

Year	White	Negro	Indian	Chinese	Japanese	Other	Total
1940.....	2,067,953	278,869	9,547	1,098	1,873	1,059	2,360,399
1944.....	2,454,700	324,183	10,541	1,291	2,889	1,196	2,794,800
1945.....	2,395,563	324,264	10,172	1,382	2,936	1,139	2,735,456
1946.....	2,913,645	358,114	11,191	1,534	2,756	1,432	3,288,672
1947.....	3,274,620	406,957	11,509	2,170	3,049	1,635	3,699,940
1948.....	3,020,316	434,174	11,379	4,210	3,045	1,944	3,535,068
1949.....	3,083,721	453,235	12,332	5,062	3,237	1,942	3,559,529

Live Births by Age and Race of Parents, U. S., 1949

Source: Federal Security Agency, Public Health Service.

Age and race of mother	Age of father										Not stated	All ages
	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55 & over		
White												
Under 15....	4	435	537	119	22	20	4	5	4	3	578	1,731
15-19.....	5	41,924	200,206	57,832	11,236	3,101	896	365	132	111	16,411	332,219
20-24.....	2	7,484	405,089	425,752	106,941	26,203	7,718	2,648	903	646	15,326	998,712
25-29.....	1	320	46,249	414,469	307,635	89,822	23,276	7,392	2,277	1,474	7,434	900,349
30-34.....	3	60	3,606	46,362	225,447	168,930	51,801	14,224	4,602	2,590	3,704	521,329
35-39.....	3	21	538	4,755	27,658	106,801	76,243	25,748	7,508	4,243	2,215	255,733
40-44.....	..	6	75	386	1,727	8,228	26,382	17,996	6,192	3,112	667	64,771
45-49.....	..	1	7	18	58	160	549	1,776	1,022	594	50	4,235
50 & over....	..	....	2	7	10	11	10	12	23	29	4	108
Not stated ..	..	42	682	984	718	452	223	96	36	31	1,270	4,534
All ages.....	18	50,293	656,991	950,684	681,452	403,728	187,102	70,262	22,699	12,833	47,659	3,083,721
Nonwhite												
Under 15....	14	666	377	94	15	14	5	3	4	3	2,090	3,285
15-19.....	4	13,847	42,641	12,190	2,305	867	318	149	44	39	28,405	100,809
20-24.....	3	1,265	56,540	54,632	15,416	5,649	2,070	909	289	227	19,112	156,112
25-29.....	..	66	4,881	39,319	31,052	13,716	4,805	2,291	702	506	9,550	106,888
30-34.....	..	7	458	3,889	18,945	18,719	7,710	3,327	1,191	824	4,951	60,021
35-39.....	..	8	80	609	2,376	12,216	9,741	4,657	1,560	1,254	3,000	35,501
40-44.....	..	....	11	57	186	796	3,337	2,650	989	750	753	9,529
45-49.....	..	1	1	5	15	34	86	299	168	138	69	816
50 & over....	..	....	....	1	3	3	2	4	7	11	11	42
Not stated ..	..	65	317	353	224	197	100	53	25	12	1,459	2,805
All ages.....	21	15,925	105,306	111,149	70,537	52,211	28,174	14,342	4,979	3,764	69,400	475,808

Life Expectancy in the United States

(This table, based on deaths and estimated population for 1949, indicates the average future lifetime in years of all individuals at the ages shown.)

Source: Federal Security Agency, Public Health Service.

Age	White Males	White Females	Non-white Males	Non-white Females	Total population	Age	White Males	White Females	Non-white Males	Non-white Females	Total population
0.....	65.9	71.5	58.6	62.9	67.6	45.....	26.7	30.8	23.6	26.8	28.3
1.....	67.1	72.3	60.8	64.7	68.8	50.....	22.6	26.4	20.5	23.5	24.2
5.....	63.5	68.7	57.5	61.3	65.2	55.....	18.9	22.3	17.7	20.4	20.4
10.....	58.7	63.9	52.8	56.5	60.4	60.....	15.5	18.3	15.3	17.7	16.8
15.....	53.9	59.0	48.0	51.7	55.6	65.....	12.4	14.6	13.1	15.5	13.5
20.....	49.3	54.2	43.5	47.1	50.9	70.....	9.8	11.3	11.8	14.4	10.7
25.....	44.7	49.4	39.3	42.8	46.3	75.....	7.5	8.5	10.5	13.2	8.2
30.....	40.0	44.6	35.1	38.5	41.7	80.....	5.5	5.9	9.4	12.2	6.0
35.....	35.4	39.9	31.0	34.3	37.1	85.....	3.7	3.7	8.1	10.9	4.0
40.....	30.9	35.3	27.2	30.4	32.6						

Comparison with Other Years, White Males and Females

Years	At birth		Age 20		Age 45		Age 70	
	Males	Females	Males	Females	Males	Females	Males	Females
1900-1902*	48.2	51.1	42.2	43.8	24.2	25.5	9.0	9.6
1919-1921†	56.3	58.5	45.6	46.5	26.0	27.0	9.5	9.9
1929-1931.....	59.1	62.7	46.0	48.5	25.3	27.4	9.2	10.0
1930-1939.....	60.6	64.5	46.3	49.7	25.5	28.0	9.3	10.2
1939-1941.....	62.8	67.3	47.8	51.4	25.9	28.9	9.4	10.5
1948.....	65.6	71.0	49.0	53.8	26.5	30.5	9.8	11.2
1949.....	65.9	71.5	49.3	54.2	26.7	30.8	9.8	11.3

* For original death-registration area (26.2% of national population).

† For death-registration area of 1920 (80.9% of national population).

Live Births and Deaths in the United States, 1915 to 1951

(Deaths exclude fetal deaths)

Source: Federal Security Agency, Public Health Service.

Year	Reg. % ¹	Births in registration states				Rate ²	Reg. % ¹	Deaths in registration states				Rate ³
		Males	Females	Total				Males	Females	Total		
1915	30.9	398,615	377,689	776,304	25.0	61.6	443,928	371,572	815,500	13.2		
1919	58.6	705,593	667,845	1,373,438	22.4	79.6	567,185	505,078	1,072,263	12.9		
1920	59.7	775,322	733,552	1,508,874	23.7	80.9	586,136	531,934	1,118,070	13.0		
1921	65.2	881,591	832,670	1,714,261	24.2	80.9	533,267	476,406	1,009,673	11.5		
1922	72.3	911,831	863,080	1,774,911	22.3	84.2	575,927	508,025	1,083,952	11.7		
1923	72.4	921,020	871,626	1,792,646	22.1	85.5	625,259	548,806	1,174,065	12.1		
1924	76.2	992,431	938,183	1,930,614	22.2	87.0	619,874	531,202	1,151,076	11.6		
1925	76.2	966,973	911,907	1,878,880	21.3	88.1	641,397	550,412	1,191,809	11.7		
1926	77.0	953,638	902,430	1,856,068	20.5	88.4	677,032	580,224	1,257,256	12.1		
1927	87.6	1,099,287	1,038,549	2,137,836	20.5	90.0	656,697	554,930	1,211,627	11.3		
1928	94.3	1,147,625	1,085,524	2,233,149	19.7	94.3	738,891	623,096	1,361,987	12.0		
1929	94.7	1,114,814	1,055,106	2,169,920	18.8	94.7	745,491	624,266	1,369,757	11.9		
1930	94.7	1,131,976	1,071,982	2,203,958	18.9	95.3	726,680	600,560	1,327,240	11.3		
1931	94.7	1,084,404	1,028,358	2,112,760	18.0	95.3	717,630	589,643	1,307,273	11.1		
1932	95.2	1,063,885	1,010,157	2,074,042	17.4	95.2	704,506	588,763	1,293,269	10.9		
1933	100.0	1,068,871	1,012,361	2,081,232	16.6	100.0	737,312	604,794	1,342,106	10.7		
1934	100.0	1,112,703	1,054,933	2,167,636	17.2	100.0	772,595	624,308	1,396,903	11.1		
1935	100.0	1,105,489	1,049,616	2,155,105	16.9	100.0	771,320	621,432	1,392,752	10.9		
1936	100.0	1,099,465	1,045,325	2,144,790	16.7	100.0	821,439	657,789	1,479,228	11.6		
1937	100.0	1,130,641	1,072,696	2,203,337	17.1	100.0	808,834	641,593	1,450,427	11.3		
1938	100.0	1,172,541	1,114,421	2,286,962	17.6	100.0	764,902	616,489	1,381,391	10.6		
1939	100.0	1,162,600	1,102,988	2,265,588	17.3	100.0	768,877	619,020	1,387,897	10.6		
1940	100.0	1,211,684	1,148,715	2,360,399	17.9 ⁴	100.0	791,003 ⁵	626,266 ⁵	1,417,269 ⁵	10.7 ⁵		
1941	100.0	1,289,734	1,223,693	2,513,427	18.8 ⁴	100.0	785,033 ⁵	612,609 ⁵	1,397,642 ⁵	10.5 ⁵		
1942	100.0	1,444,365	1,364,631	2,808,996	20.8 ⁴	100.0	780,454 ⁵	604,733 ⁵	1,385,187 ⁵	10.4 ⁵		
1943	100.0	1,506,959	1,427,901	2,934,860	21.5 ⁴	100.0	817,485 ⁵	642,059 ⁵	1,459,544 ⁵	10.9 ⁵		
1944	100.0	1,435,361	1,359,499	2,794,860	20.2 ⁴	100.0	789,861 ⁵	621,477 ⁵	1,411,338 ⁵	10.6 ⁵		
1945	100.0	1,404,587	1,330,869	2,735,456	19.5 ⁴	100.0	788,063 ⁵	613,656 ⁵	1,401,719 ⁵	10.6 ⁵		
1946	100.0	1,691,220	1,597,452	3,288,672	23.3 ⁴	100.0	785,689 ⁵	609,928 ⁵	1,395,617 ⁵	10.0 ⁵		
1947	100.0	1,899,876	1,800,064	3,699,940	25.8 ⁴	100.0	818,234 ⁵	627,136 ⁵	1,445,370 ⁵	10.1 ⁵		
1948	100.0	1,813,852	1,721,216	3,535,068	24.2 ⁴	100.0	820,981 ⁵	623,406 ⁵	1,444,337 ⁵	9.9 ⁵		
1949	100.0	1,826,352	1,733,177	3,559,529	24.0 ⁴	100.0	821,291 ⁵	622,316 ⁵	1,443,607 ⁵	9.7 ⁵		
1950 ⁴	100.0	.....	.....	3,548,000	23.5 ⁴	100.0	.....	.....	1,456,000	9.6 ⁵
1951 ⁴	100.0	.....	.....	3,758,000	24.5 ⁴	100.0	.....	.....	1,486,000	9.7 ⁵

¹ Represents percentage of national population living in birth- and death-registration states for each year given.² Per 1,000 population. ³ Excludes deaths among armed forces overseas. ⁴ Based on total population including armed forces overseas. ⁵ Based on population excluding armed forces overseas. ⁶ Estimated.

Motor-Vehicle Deaths by Type of Accident, 1913 to 1951

Source: National Safety Council.

Year	Deaths from collisions with—							Deaths from non-collision accidents*	Total deaths†
	Pedestrians	Other motor vehicles	Rail-road trains	Street cars	Bi-cycles	Animal-drawn vehicle or animal	Fixed objects*		
1913	.....	.....	.....	.....	.....	.....	.....	.....	4,200
1918	.....	.....	.....	.....	.....	.....	.....	.....	10,700
1923	.....	.....	.....	.....	.....	950	.....	.....	18,400
1928	11,420	4,310	2,140	570	.....	.....	540	8,070	28,000
1933	12,840	6,470	1,437	318	400	310	900	8,680	31,363
1938	12,850	8,900	1,430	165	720	170	940	7,350	32,582
1943	9,900	5,300	1,448	171	450	160	700	5,690	23,823
1946	11,600	9,480	1,732	174	540	130	950	8,990	33,411
1948	9,950	10,200	1,474	83	500	100	1,000	8,950	32,259
1949	8,800	10,500	1,452	56	550	140	1,100	9,100	31,701
1950	8,600	12,500	1,528	120	500	110	1,200	10,450	35,000
1951	9,000	13,200	1,508	50	450	100	1,300	11,100	37,300

* The proportion of deaths allocated to fixed-object and noncollision accidents is different from that reported by most States. State reports generally indicate that many accidents involving no collision on the roadway are classified as fixed-object accidents and hence the motor vehicle accident with an object after leaving the roadway.

† The totals do not quite equal the sum of the various types because the estimates were generally made only to the nearest 10 deaths, and to the nearest 50 deaths for certain types.

Accidental Deaths by Age, 1913 to 1951

Source: National Safety Council.

Year	0-4 years	5-14 years	15-24 years	25-44 years	45-64 years	65 years and over*	All ages
1913.....	9,800	7,450	11,950	24,350	16,450	12,500	82,500
1918.....	10,400	10,000	10,550	22,050	17,550	14,550	85,100
1923.....	9,450	9,550	11,100	21,250	17,150	15,900	84,400
1928.....	8,850	9,750	13,000	23,200	20,700	19,500	95,000
1933.....	6,948	8,195	12,225	21,005	20,819	21,740	90,932
1938.....	6,646	6,593	12,129	20,464	21,689	26,284	93,805
1943.....	8,039	6,636	15,278	20,212	20,109	28,784	90,038
1946.....	7,949	6,545	13,366	20,705	20,249	29,219	80,033
1948 (5th Revision)†.....	8,387	5,859	12,595	20,274	19,809	31,077	98,001
1948 (6th Revision)†.....	8,350	5,850	12,600	20,300	19,300	26,600	93,000
1949.....	8,469	5,539	11,522	19,432	18,302	26,842	90,106
1950.....	8,100	5,500	12,600	20,600	18,700	24,500	90,000
1951.....	8,200	5,900	12,700	22,200	19,700	25,300	94,000

* Includes "age unknown"; in 1949 these deaths numbered only 191. † The most recent revision of classification of deaths by cause differs so greatly from earlier classifications that two figures must be shown for 1948. That of the 5th Revision is comparable with figures for earlier years; that of the 6th Revision, with figures for later years.

Death Rates per 1,000 Population, 1900 to 1949

(Exclusive of fetal deaths)

Source: Federal Security Agency, Public Health Service.

Age, in years	1900	1920	1930	1940*	1943*	1944*	1945*	1946*	1947*	1948*	1949*
Males, all ages†.....	17.9	13.4	12.3	12.0	12.4	12.4	12.7	11.4	11.5	11.3	11.1
Under 1.....	179.1	103.6	77.0	61.7	48.2	48.3	46.8	51.1	38.1	39.4	38.4
1-4.....	20.5	10.3	6.0	3.1	2.8	2.5	2.2	1.9	1.7	1.7	1.6
5-14.....	3.8	2.8	1.9	1.2	1.1	1.1	1.0	1.0	.8	.8	.8
15-24.....	5.9	4.8	3.5	2.3	2.6	2.8	2.7	2.1	1.9	1.8	1.7
25-34.....	8.2	6.4	4.9	3.4	3.3	3.4	3.6	2.7	2.5	2.4	2.2
35-44.....	10.7	8.2	7.5	5.9	5.6	5.4	5.6	4.9	4.9	4.8	4.6
45-54.....	15.7	12.6	13.6	12.5	12.3	11.9	11.8	11.5	11.5	11.4	10.9
55-64.....	28.7	24.6	26.6	26.0	25.6	24.8	24.7	23.9	24.6	24.2	23.9
65-74.....	59.3	54.5	55.8	54.5	54.2	52.3	51.7	50.3	52.4	52.1	51.7
75-84.....	128.3	122.1	119.1	120.2	117.8	111.5	108.7	105.1	108.2	107.0	106.3
85 and over.....	268.8	253.0	236.7	240.6	246.5	232.4	233.0	236.6	251.3	254.9	246.5
Females, all ages†.....	16.5	12.6	10.4	9.5	9.4	9.0	8.8	8.6	8.7	8.5	8.3
Under 1.....	145.4	80.7	60.7	47.7	37.5	38.1	36.4	39.2	29.4	30.4	29.6
1-4.....	19.1	9.5	5.2	2.7	2.3	2.1	1.8	1.6	1.4	1.4	1.4
5-14.....	3.9	2.5	1.5	.9	.8	.7	.7	.7	.6	.6	.5
15-24.....	5.8	5.0	3.2	1.8	1.5	1.4	1.4	1.3	1.2	1.1	.9
25-34.....	8.2	7.1	4.4	2.7	2.4	2.2	2.1	1.9	1.8	1.6	1.5
35-44.....	9.8	8.0	6.1	4.5	4.1	3.9	3.8	3.5	3.4	3.2	3.0
45-54.....	14.2	11.7	10.6	8.6	8.1	7.7	7.5	7.2	7.1	6.8	6.5
55-64.....	25.8	22.4	21.2	17.9	17.2	16.3	15.8	15.1	15.0	14.5	14.0
65-74.....	53.6	50.5	46.8	42.0	40.8	39.0	37.8	36.8	37.3	36.4	35.8
75-84.....	118.8	115.9	106.6	102.6	100.3	95.0	91.4	88.3	89.4	87.1	84.6
85 and over.....	255.2	244.7	221.4	222.3	225.7	216.4	214.7	222.7	236.9	241.3	238.7
Male and female, all ages†.....	17.2	13.0	11.3	10.7	10.9	10.6	10.6	10.0	10.1	9.9	9.7
Under 1.....	162.4	92.3	69.0	54.8	43.0	43.3	41.7	45.3	33.8	35.0	34.1
1-4.....	19.8	9.9	5.6	2.9	2.6	2.3	2.0	1.8	1.6	1.6	1.5
5-14.....	3.9	2.6	1.7	1.0	1.0	.9	.9	.8	.7	.7	.6
15-24.....	5.9	4.9	3.3	2.0	2.0	2.0	1.9	1.7	1.5	1.4	1.3
25-34.....	8.2	6.8	4.7	3.1	2.8	2.7	2.7	2.3	2.1	2.0	1.9
35-44.....	10.2	8.1	6.8	5.2	4.9	4.7	4.6	4.2	4.1	4.0	3.8
45-54.....	15.0	12.2	12.2	10.6	10.3	9.8	9.7	9.3	9.3	9.0	8.7
55-64.....	27.2	23.6	24.0	22.0	21.5	20.6	20.3	19.5	19.8	19.4	18.9
65-74.....	56.4	52.5	51.4	48.2	47.4	45.5	44.5	43.4	44.6	44.0	43.5
75-84.....	123.3	118.9	112.7	110.9	108.5	102.7	99.5	96.1	98.1	96.3	94.5
85 and over.....	260.9	248.3	228.0	230.1	234.6	223.3	222.5	228.6	243.1	247.1	242.0

* Excluding armed forces overseas † Includes ages not reported. NOTE: Rates are for population in death-registration states: 1900—26.2% of U. S. population; 1920—80.9%; 1930—95.3%; 1940—100%.

Motor-Vehicle Deaths by States, 1950-51

Source: National Safety Council.

State	1950	Rate ¹	1951	Rate ¹	State	1950	Rate ¹	1951	Rate ¹
Alabama.....	838	12.4	819	11.0	Nebraska.....	306	6.1	341	6.4
Arizona.....	325	11.4	415	12.9	Nevada.....	112	12.0	129	12.0
Arkansas.....	387	8.6	431	8.6	New Hampshire.....	87	5.3	91	5.3
California.....	3,054	7.4	3,422	7.6	New Jersey.....	687	4.4	763	4.6
Colorado.....	388	8.3	344	6.6	New Mexico.....	339	12.6	390	12.9
Connecticut.....	260	4.1	265	3.9	New York.....	1,963	6.2	2,075	6.2
Delaware.....	83	7.1	78	6.1	North Carolina.....	989	8.8	1,071	8.7
D. C.....	72	2.9	66	2.5	North Dakota.....	101	5.8	148	7.4
Florida.....	877	9.5	886	8.7	Ohio.....	1,754	6.6	1,761	6.3
Georgia.....	905	10.0	954	9.5	Oklahoma.....	501	6.9	577	7.4
Idaho.....	245	10.9	224	9.4	Oregon.....	428	7.1	427	6.6
Illinois.....	1,973	7.5	1,992	7.1	Pennsylvania.....	1,565	5.8	1,641	5.7
Indiana.....	1,124	8.1	1,247	8.3	Rhode Island.....	79	3.9	64	3.0
Iowa.....	587	6.2	609	6.2	South Carolina.....	677	12.4	725	12.0
Kansas.....	534	7.6	611	8.4	South Dakota.....	178	7.2	156	4.5
Kentucky.....	730	10.4	743	10.1	Tennessee.....	747	9.1	808	8.9
Louisiana.....	591 ²	9.2	659 ²	9.5	Texas.....	2,410	8.0	2,546	7.6
Maine.....	162	5.8	149	5.0	Utah.....	188	7.6	207	7.7
Maryland.....	497	7.8	547	7.9	Vermont.....	67	5.6	85	6.9
Massachusetts.....	530	4.4	492	3.9	Virginia.....	915	9.4	999	9.4
Michigan.....	1,607	7.5	1,640	7.2	Washington.....	502	6.3	540	6.3
Minnesota.....	532	5.7	610	6.3	West Virginia.....	370	8.0	365	7.5
Mississippi.....	478	9.2	500	8.6	Wisconsin.....	831	7.8	789	7.1
Missouri.....	889	6.4	1,000	6.6	Wyoming.....	151	9.7	170	10.1
Montana.....	202	8.9	182	7.2	Total U. S.....	35,000 ³	7.5	37,300 ²	7.6

¹ Number of deaths per 100,000,000 vehicle-miles. ² From state health authorities. ³ Totals are not sums of state figures. NOTE: Figures are per state traffic authorities and indicate place of accident rather than of death.

Transportation-Accident Death Rates, 1949-51

Source: National Safety Council.

Kind of transportation	Passenger mileage, in millions	Passenger deaths			All deaths ³		
		Deaths, 1951	Rates ¹		Deaths, 1951	Rates ¹	
			1951	1949-51 ²		1951	1949-51 ²
Passenger automobiles, taxis ⁴	860,000	21,000	2.4	2.3	30,500	3.5	3.4
Busses.....	60,000	130	0.22	0.19	700	1.2	1.2
Railroad passenger trains.....	34,660	150	0.43	0.36	1,445	4.2	4.3
Scheduled transport planes.....	10,950	142	1.3	1.3	170	1.6	1.5

¹ Per 100,000,000 miles. ² Average death rate. ³ All persons—pedestrians, trespassers, etc., as well as passengers—killed in operation of vehicles are included. ⁴ Drivers of passenger automobiles are considered passengers.

Motor Vehicle Deaths by Age, 1943-51

Source: National Safety Council.

Year	Under 5 years	5-14 years	15-24 years	25-44 years	45-64 years	65 years and over [*]	All ages
1943.....	1,132	1,959	4,522	6,454	5,996	3,760	23,823
1944.....	1,203	2,093	4,561	6,514	5,982	3,929	24,282
1945.....	1,290	2,386	5,358	7,578	6,794	4,670	28,076
1946.....	1,358	2,508	7,445	8,956	7,532	5,403	33,411
1947.....	1,502	2,275	7,251	8,775	7,468	5,426	32,697
1948.....	1,635	2,337	7,218	8,702	7,190	5,177	32,259
1949.....	1,667	2,158	6,772	8,892	7,073	5,139	31,701
1950.....	1,800	2,200	7,900	10,100	7,700	5,303	35,000
1951.....	1,900	2,400	7,800	11,200	8,500	5,500	37,300

* Includes "age unknown"; in 1949, these deaths numbered only 61.

Motor Vehicle Deaths in Largest U. S. Cities, 1950-51

Sources this page: National Safety Council.

City	Num- ber 1950 ¹	Num- ber 1951 ¹	Pop. rate 1951 ²	Regis. rate 1951 ³	City	Num- ber 1950 ¹	Num- ber 1951 ¹	Pop. rate 1951 ²	Regis. rate 1951 ³
Baltimore, Md.....	97	89	9.4	3.9	Memphis, Tenn.....	42	26	6.6	2.5
Boston, Mass.....	77	69	8.6	4.4	Milwaukee, Wis.....	43	50	7.8	2.6
Buffalo, N. Y.....	51	61	10.5	3.5	Minneapolis, Minn.....	36	37	7.1	1.9
Chicago, Ill.....	398	416	11.5	4.7	New Orleans, La.....	53	57	10.0	4.6
Cincinnati, Ohio.....	59	73	14.5	5.0	New York, N. Y.....	535	553	7.0	4.4
Cleveland, Ohio.....	95	107	11.7	3.6	Newark, N. J.....	36	41	9.3	3.5
Columbus, Ohio.....	44	33	8.8	2.4	Oakland, Calif.....	45	69	17.9	4.8
Dallas, Texas.....	56	52	12.0	2.7	Philadelphia, Pa.....	162	166	8.0	4.0
Denver, Colo.....	41	45	10.8	2.8	Pittsburgh, Pa.....	54	50	7.4	3.1
Detroit, Mich.....	197	227	12.3	3.5	St. Louis, Mo.....	103	98	11.4	3.7
Houston, Texas.....	74	78	13.1	3.8	San Antonio, Texas.....	53	45	11.0	3.1
Indianapolis, Ind.....	59	66	15.4	3.5	San Francisco, Calif.....	56	84	10.8	3.3
Kansas City, Mo.....	37	44	9.6	3.3	Seattle, Wash.....	50	47	10.1	2.4
Los Angeles, Calif.....	269	269	13.6	3.1	Washington, D. C.....	72	66	8.2	3.4

¹ Only motor-vehicle traffic deaths resulting from accidents occurring within the city are included. ² Deaths per 100,000 population. ³ Deaths per 10,000 registered motor vehicles. Registration figures supplied by R. L. Polk & Co.

Deaths in Steam Railway Accidents, 1918 to 1951

Year	Passen- gers on trains*	Travelers not on trains*	Employees on duty	Persons in grade crossing accidents	Other non-tres- passers†	Tres- passers	Total‡
1918.....		521§	3,566	1,979	501	3,423	9,994
1923.....		149§	2,134	2,422	370	2,861	7,795
1928.....		104§	1,357	2,768	363	2,532	7,002
1933.....	47	13	571	1,638	179	3,025	5,434
1938.....	79	9	549	1,679	190	2,428	4,879
1943.....	271	13	1,089	1,876	326	1,788	5,302
1946.....	115	17	736	2,025	201	1,618	4,712
1948.....	52	13	639	1,742	174	1,440	4,060
1949.....	29	8	443	1,609	149	1,292	3,530
1950.....	184	5	399	1,698	123	1,218	3,627
1951.....	150	8	446	1,691	145	1,130	3,570

* Persons on or getting on or off passenger-carrying trains under conditions not constituting trespass are designated as "passengers on trains." Other persons lawfully on railway premises in connection with their journeys by railways are designated as "travelers not on trains." † Death totals in this column exclude subsequent fatalities due to lack of information. ‡ The sum of the items in the preceding columns exceeds the figure in the "Total" column because of duplication; e.g., employees killed in grade crossing accidents. § Deaths to passengers on trains and travelers not on trains are combined.

Principal Types of Accidental Deaths, 1913 to 1951

Year	Motor vehicle	Falls	All burns*	Drown- ing	Rail- road	Fire- arms	Poison gases	Poisons (except gas)	All types
1913.....	4,200	18,700	9,350	10,000	12,500	2,400	3,550	3,200	82,500
1918.....	10,700	16,700	10,700	7,350	10,500	2,700	4,400	2,650	85,100
1923.....	18,400	16,800	9,550	7,000	8,100	2,950	2,800	2,950	84,400
1928.....	28,000	19,600	9,000	8,750	7,150	3,000	2,800	2,850	95,000
1933.....	31,363	21,746	7,341	7,465	5,410	3,026	1,668	2,334	90,932
1938.....	32,582	25,454	7,145	7,347	4,868	2,696	1,459	2,196	93,805
1943.....	23,823	28,000	10,450	7,710	5,231	2,318	2,110	1,890	99,038
1946.....	33,411	25,650	8,790	6,940	4,640	2,816	1,930	2,050	98,033
1948 (5th Revision)†.....	32,259	24,800	7,668	6,500	3,976	2,270	2,002	1,713	98,001
1948 (6th Revision)†.....	32,259	22,000	6,800	6,500	3,800	2,330	2,020	1,600	93,000
1949.....	31,701	22,308	5,982	6,684	3,571	2,326	1,617	1,634	90,106
1950.....	35,000	20,200	6,300	6,100	3,650	2,250	1,750	1,550	90,000
1951.....	37,300	20,600	6,500	6,500	3,550	2,250	1,650	1,500	94,000

* Includes burns by fire and deaths directly resulting from conflagration, regardless of nature of injury; also burns by chemicals, steam, or any other hot substance in 1948 (5th Revision) and earlier years. † The most recent revision of classification of deaths by cause differs so greatly from earlier classifications that two figures must be shown for 1948. That of the 5th Revision is comparable with figures for earlier years; that of the 6th Revision, with figures for later years.

Crude Birth and Death Rates, by Country

(Number of births and deaths per 1,000 inhabitants, excluding stillbirths)

Source: Statistical Office of the United Nations.

Country	1939		1947		1949		1950		1951	
	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths
Australia ¹	17.6	9.9	24.1	9.7	22.9	9.5	23.3	9.6	22.9	9.7
Austria	20.7	15.3 ¹	18.6	13.0	15.8	12.7	15.1	12.1	14.6 ¹³	12.7 ¹³
Belgium	15.5	13.9	17.8	13.3	17.2	12.9	16.5	12.4	16.1 ¹³	12.7 ¹³
Bulgaria	21.4	13.4	24.0 ²	13.4 ²	.....	.....	.....	.....	.....	.....
Canada ³	20.4	9.7	28.6	9.4	26.9	9.2	26.5	9.0	27.1 ¹³	9.0 ¹³
Ceylon	36.0	21.8	39.4	14.3	39.9	12.6	40.2 ¹³	12.6 ¹³	.....	.....
Chile	33.3	23.3	33.8	16.7	33.2	18.1	32.4	15.7	32.3	15.7
Costa Rica	42.8	18.5	53.6	13.9	41.0	11.8	46.5	.....	47.6	10.7
Czechoslovakia	18.6	13.3	23.8	12.0	22.1	11.7	22.9	11.4	.....	.....
Denmark	17.8	10.1	22.1	9.7	18.9	8.9	18.6	9.2	17.8	8.8
El Salvador	41.6	18.3	41.2	15.0	39.5	13.2	48.7	14.8	.....	.....
Finland	21.2	14.7	27.8	12.0 ⁵	25.8	11.1	24.0	10.2	22.9	10.0 ¹³
France ⁶	14.8	15.6	21.3	13.2	20.9	13.7	20.4	12.6	19.5 ¹³	13.3 ¹³
Germany, Western	.....	.....	.....	.....	17.0	10.3	16.2	10.4	15.7 ¹³	10.5 ¹³
Hungary	19.4	13.5	18.4	12.1	.....	.....	.....	.....	.....	.....
India ⁹	32.7	21.6	26.6	19.7	26.8	16.0	25.9	16.5	.....	.....
Ireland	19.1	14.2	23.2	14.9	21.4	12.7	21.0	12.6	21.2	14.3
Israel ¹²	.....	.....	.....	.....	29.6	6.8	32.9	6.5	33.3	6.5
Italy	23.6	13.4	21.9	11.4	20.0	10.4	19.6	9.8	18.1 ¹³	10.3 ¹³
Japan ¹⁰	26.6	17.8	34.3	14.6	32.8	11.6	28.3	10.9	25.6 ¹³	10.0 ¹³
Luxemburg	15.0	12.7	14.8	12.5	14.4	12.6	14.8	11.6	14.9 ¹³	11.7 ¹³
Mexico	44.6	28.0	45.1	16.3	45.4	17.9	45.7	16.4	.....	.....
Netherlands	20.6	8.6	27.8	8.1	23.7	8.1	22.7	7.5	22.3	7.6
New Zealand ¹¹	18.7	9.2	26.4	9.4	24.9	9.1	24.6	9.3	24.4	9.6
Nicaragua	32.5	11.9	34.9	11.1	35.4	10.1	41.4	10.9	.....	.....
Norway	15.9	10.2	21.6	9.3	19.5	9.0	19.3	8.9	18.5 ¹³	8.3 ¹³
Panama ³	27.9	11.4	34.7	9.1	33.0	7.1	33.4	9.9	.....	.....
Peru ³	27.5	13.8	27.7	11.3	31.1	13.0	32.3	12.5	25.3 ¹³	9.2 ¹³
Portugal	26.2	15.3	24.1	13.3	25.0	13.8	23.8	11.9	24.2	12.3
Puerto Rico	39.6	17.7	42.6	11.9	39.0	10.7	38.6	9.9	37.2 ¹³	9.9 ¹³
Rumania	28.3	18.6	22.4	21.1	.....	.....	.....	.....	.....	.....
South Africa, U. of ¹	25.3	9.4	27.2	8.6	25.9	9.1	25.7	9.1	25.6 ¹³	9.2 ¹³
Spain	16.6	18.5	21.3	12.0	21.4	11.4	19.9	10.3	20.1 ¹³	11.6 ¹³
Sweden	15.4	11.5	18.9	10.8	17.4	10.0	16.4	10.0	15.6 ¹³	9.9 ¹³
Switzerland	15.2	11.3	19.3	11.3	18.3	10.6	18.1	10.1	17.2 ¹³	10.5 ¹³
United Kingdom	15.2	12.2	20.8	12.1	17.9	11.7	16.1	11.7	15.9 ¹³	12.6 ¹³
United States	17.3	10.6	25.7	10.1	23.9	9.7	23.4	9.6	24.3 ¹³	9.7 ¹³
Venezuela ³	35.9	18.7	39.5	13.9	43.3	12.5	43.0	11.0	.....	.....

¹ Excluding deaths among armed forces. ² Including southern Dobruja. ³ Excluding Yukon, Northwest Territories and (except 1951) Newfoundland. ⁴ Excluding aboriginals. ⁵ Excluding "declared dead." ⁶ Excluding infants born alive but who die before registration of birth. ⁷ European population only. ⁸ Excluding jungle population. ⁹ 1939 former British provinces: 1947-50, registration area only. ¹⁰ Japanese Nationals only in 4 principal islands. ¹¹ Excluding Maoris. ¹² Jewish population only; deaths exclude war casualties. ¹³ Provisional.

Census Divisions of the U. S.

New England States: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.

Middle Atlantic States: New York, New Jersey, Pennsylvania.

East North Central States: Ohio, Indiana, Illinois, Michigan, Wisconsin.

West North Central States: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

South Atlantic States: Delaware, Maryland, District of Columbia*, Virginia, West

Virginia, North Carolina, South Carolina, Georgia, Florida.

East South Central States: Kentucky, Tennessee, Alabama, Mississippi.

West South Central States: Arkansas, Louisiana, Oklahoma, Texas.

Mountain States: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada.

Pacific States: Washington, Oregon, California.

* Counted as a state for census purposes.

Life Expectancy, by Country

Source: U. N. Department of Public Information.

Country	Years	Sex	Average future lifetime in years at age of									
			0	1	10	20	30	40	50	60	70	
Australia ¹	1945-48	M	66.07	67.25	59.04	49.64	40.40	31.23	22.67	15.36	9.55	
		F	70.63	71.45	63.11	53.47	44.08	34.91	26.14	18.11	11.14	
Austria.....	1930-33	M	54.47	60.55	54.08	45.18	36.86	28.65	20.96	14.15	8.59	
		F	58.53	63.46	56.96	48.03	39.59	31.13	22.94	15.42	9.21	
Belgium.....	1928-32	M	56.02	61.25	54.88	46.04	37.78	29.48	21.61	14.53	8.69	
		F	59.79	63.84	57.25	48.43	40.17	31.77	23.55	15.93	9.60	
Brazil ²	1920	Both	37.43	45.26	44.28	36.33	30.34	24.36	18.61	13.33	8.76	
Bulgaria ³	1925-28	M	45.92	54.37	53.75	45.78	38.45	30.70	23.23	16.45	10.88	
		F	46.64	53.73	53.20	45.45	38.97	31.73	24.32	17.19	11.05	
Canada ⁴	1947	M	65.18	67.75	59.79	50.48	41.41	32.37	23.92	16.46	10.44	
		F	69.05	70.93	62.78	53.33	44.12	35.00	26.32	18.25	11.41	
China: Formosa (Taiwan).....	1936-40	M	41.08	47.61	45.62	37.15	29.68	22.66	16.50	11.28	7.09	
		F	45.73	51.46	50.78	42.37	34.83	27.70	20.65	14.18	8.74	
Czechoslovakia.....	1929-32	M	51.92	59.90	54.04	45.29	37.15	28.96	21.24	14.35	8.67	
		F	55.18	61.96	56.10	47.40	39.24	30.98	22.83	15.35	9.24	
Denmark.....	1941-45	M	65.62	68.43	60.46	51.12	42.20	33.16	24.51	16.69	10.13	
		F	67.70	69.63	61.52	52.03	42.91	33.88	25.16	17.14	10.38	
Egypt.....	1936-38	M	35.65	42.09	46.86	39.77	32.96	26.12	19.42	13.29	7.88	
		F	41.48	48.14	54.47	46.11	38.23	30.82	23.43	16.26	9.55	
England and Wales ⁵	1948	M	66.39	68.01	59.76	50.29	41.84	31.86	23.25	15.82	10.03	
		F	71.15	72.30	63.94	54.43	45.26	36.04	27.15	18.96	11.91	
Finland.....	1941-45	M	54.62	57.68	51.27	42.90	35.36	27.52	20.16	13.78	8.80	
		F	61.14	63.84	57.42	48.91	40.96	32.68	24.41	16.58	10.03	
France.....	1946-48	M	62.5	65.0	58.0	48.0	39.0	31.0	23.0	16.0	10.0	
		F	68.0	70.0	62.0	53.0	44.0	35.0	26.0	18.0	11.0	
Germany.....	1932-34	M	59.86	64.43	57.28	48.16	39.47	30.83	22.54	15.11	9.05	
		F	62.81	66.41	59.09	49.84	41.05	32.33	23.85	16.07	9.58	
Greece.....	1926-30	M	49.09	53.22	52.40	44.31	37.07	29.76	22.58	16.03	10.57	
		F	50.89	55.09	54.48	46.43	39.45	32.40	24.93	17.49	10.99	
Hungary.....	1941	M	54.92	61.75	55.27	46.65	38.58	30.14	22.15	15.00	8.97	
		F	58.22	64.00	57.32	48.73	40.57	32.12	23.76	16.03	9.52	
India ⁶	1921-31	M	26.91	34.68	36.38	29.57	23.60	18.60	14.31	10.25	6.35	
		F	26.56	33.48	33.61	27.08	22.30	18.23	14.65	10.81	6.74	
Italy.....	1930-32	M	53.76	59.71	55.46	46.75	38.58	30.39	22.45	15.16	9.05	
		F	56.00	61.32	57.15	48.49	40.41	32.14	23.89	16.13	9.61	
Japan.....	1949-50	M	56.19	59.12	53.20	44.17	36.72	28.83	20.98	14.06	8.80	
		F	59.61	62.23	56.36	47.52	39.95	31.97	23.92	16.43	10.28	
Mexico.....	1940	M	37.92	44.43	45.43	37.56	31.00	24.82	18.96	13.35	8.68	
		F	39.79	46.22	47.86	40.01	33.31	26.60	19.99	13.54	8.48	
Netherlands ⁷	1947-49	M	69.4	70.8	62.7	53.2	43.8	34.5	25.6	17.5	10.7	
		F	71.5	72.4	64.1	54.5	45.0	35.6	26.5	18.2	11.1	
New Zealand ⁸	1934-38	M	65.46	66.92	59.11	49.89	40.94	32.03	23.64	16.06	9.82	
		F	68.45	69.46	61.45	52.02	42.98	34.05	25.47	17.49	10.73	
Norway.....	1921-31	M	60.98	63.51	56.27	47.73	40.39	32.40	24.41	16.97	10.63	
		F	63.84	65.76	58.35	49.85	42.14	34.00	25.87	18.16	11.40	
Poland.....	1931-32	M	48.2	56.9	52.2	43.7	36.0	27.9	20.3	13.7	8.3	
		F	51.4	58.7	54.0	45.7	38.0	30.3	22.4	15.1	9.2	
Portugal.....	1939-42	M	48.58	56.21	52.61	44.00	36.04	28.23	20.76	13.86	8.19	
		F	52.82	59.23	56.86	48.35	40.35	32.17	23.98	16.20	9.59	
South Africa, Union of ⁹	1945-47	M	63.78	65.51	57.71	48.35	39.29	30.38	22.21	15.34	9.79	
		F	68.31	69.63	61.73	52.27	43.06	34.07	25.66	18.04	11.39	
Spain.....	1930-31	M	48.74	54.54	51.54	43.16	35.35	27.51	19.97	13.20	7.78	
		F	51.94	57.23	54.46	46.12	38.32	30.33	22.38	14.93	8.83	
Sweden.....	1941-45	M	67.06	68.43	60.45	51.23	42.57	33.64	25.02	17.19	10.52	
		F	69.71	70.58	62.40	53.02	44.01	34.97	26.20	18.04	11.00	
Switzerland.....	1939-44	M	62.68	64.75	57.08	47.92	39.26	30.42	22.08	14.75	8.85	
		F	65.96	68.46	60.62	51.28	42.32	33.35	24.63	16.65	9.97	
U.S.S.R. (European).....	1926-27	M	41.93	51.40	51.65	43.24	35.65	28.02	20.99	14.85	9.65	
		F	46.79	55.46	55.72	47.36	39.75	32.12	24.41	17.07	10.96	
United States.....	1939-41	M	61.60	64.00	56.12	46.91	38.13	29.57	21.72	14.99	9.46	
		F	65.89	67.73	59.73	50.37	41.41	32.48	24.40	16.92	10.56	

¹ Excluding full-blooded aborigines. ² Federal District and 13 cities. ³ Excluding Southern Dobruja. ⁴ Excluding Yukon, Northwest Territories and Newfoundland. ⁵ Civilian population. ⁶ Including Burma. ⁷ Excluding Elten and Tüddern. ⁸ Excluding Maoris. ⁹ Europeans only.

Marriage Information, by State

Sources: Questionnaires to states; and Federal Security Agency, Public Health Service.

State	Legal minimum marriage age				Blood test required	Waiting period		Marriages	
	With parental consent		Without parental consent			Before license	After license	1950 ¹	1951 ²
	M	F	M	F					
Alabama.....	17	14	21	18	yes	none	none	22,823	21,581 ¹⁰
Arizona.....	18	16	21	18	no	none	none	20,031	20,198
Arkansas.....	18	16	21	18	no	3 da.	none	51,584 ¹⁰	53,247 ¹⁰
California.....	18 ⁴	16 ⁴	21	18	yes	none	none	79,360	74,958
Colorado.....	16	16	21	18	yes	none	none	13,735 ¹⁰	12,751 ¹⁰
Connecticut.....	16	16	21	21	yes	5 da.	none	19,474	18,759
Delaware.....	18	16	21	18	yes	none	24 hr. ⁵	2,635	2,525
D. C.....	18	16	21	18	no	3 da.	none	10,198 ¹⁰	10,029 ¹⁰
Florida.....	18	16	21	21	yes	3 da.	none	27,588	27,175
Georgia.....	17	14	21	21	yes	5 da.	none	44,122 ¹⁰	47,795 ¹⁰
Idaho.....	15	15 ⁸	18	18	yes	none	none	8,345	7,848
Illinois.....	18	16	21	18	yes	none	none	93,288 ¹⁰	87,876 ¹⁰
Indiana.....	18	16	21	18	yes	none	none	61,659 ¹⁰	62,210
Iowa.....	16	14	21	18	yes	none	none	27,603	24,300
Kansas.....	18	16	21	18	yes	3 da.	none	18,486	16,694
Kentucky.....	16	14	21	21	yes	3 da.	none	33,019 ¹⁰	27,734 ¹⁰
Louisiana.....	18	16	21	21	(7)	none	72 hr.	26,900 ¹¹	25,360 ¹⁰
Maine.....	16	16	21	18	yes	5 da.	none	8,617	8,206
Maryland.....	18	16	21	18	no	48 hr.	none	50,661 ¹⁰	48,593 ¹⁰
Massachusetts.....	18	16	21	18	yes	5 da.	none	41,711	40,800 ¹⁰
Michigan.....	18	16	18	18	yes	5 da.	none	58,180	53,409
Minnesota.....	16	15	18	16	no	5 da.	none	30,991 ¹⁰	25,138
Mississippi.....	14	12	21 ³	18 ³	no	none	none	56,738	56,973 ¹¹
Missouri.....	15 ⁶	15 ⁶	21	18	yes	3 da.	none	34,300	30,571
Montana.....	18	16	21	18	yes	none	none	7,235	6,311
Nebraska.....	18	16	21	21	yes	none	none	13,828	12,399
Nevada.....	18	16	21	18	no	none	none	49,872 ¹⁰	49,209 ¹⁰
New Hampshire.....	14	13	21	18	yes	5 da.	none	7,631	7,507
New Jersey.....	18	16	21	18	yes	72 hr.	none	46,291	44,435
New Mexico.....	18	16	21	18	no	none	none	22,717	22,013
New York.....	16	14 ¹²	21	18	yes	none	(12)	141,075	137,483
North Carolina.....	16	16	18	18	yes	none ⁷	none	29,751 ¹⁰	28,608 ¹⁰
North Dakota.....	18	15	21	18	yes	none	none	5,108	4,266
Ohio.....	18	16	21	21	yes	5 da.	none	75,136	66,376
Oklahoma.....	18	15	21	18	yes	3 da.	none	22,400 ¹¹	20,636 ¹⁰
Oregon.....	18	15	21	18	yes	3 da.	none	11,300	10,446 ¹⁰
Pennsylvania.....	16 ¹⁴	16 ¹⁴	21	21	yes	3 da.	none	89,669	84,936
Rhode Island.....	18	16	21	21	yes	5 da.	none	7,501	7,025 ¹⁰
South Carolina.....	18	14	18	18	no	24 hr.	none	46,175 ¹⁰	46,466 ¹⁰
South Dakota.....	18	15	21	18	yes	none	none	6,969	6,217
Tennessee.....	16	16	21	21	yes	3 da. ⁹	none	21,692	20,776
Texas.....	16	14	21	18	yes	none	none	89,155 ¹⁰	88,685 ¹⁰
Utah.....	16	14	21	18	yes	none	none	7,110 ¹⁰	6,843 ¹⁰
Vermont.....	18	16	21	18	yes	none	5 da.	3,569	3,380
Virginia.....	18	16	21	21	yes	none	none	36,732	36,992 ¹⁰
Washington.....	15	15	21	18	no	3 da.	none	34,438 ¹⁰	32,300 ¹¹
West Virginia.....	18	16	21	21	yes	3 da.	none	17,199 ¹⁰	16,329 ¹⁰
Wisconsin.....	18	15	21	18	yes	5 da.	none	29,081	27,376
Wyoming.....	18	16	21	21	yes	none	none	3,549	3,160

¹ By place of occurrence; figures revised. ² By place of occurrence; figures provisional. ³ State recognizes common-law marriages. ⁴ Males under 18 and females under 16 may be married with consent of parents, provided Superior Court gives its permission. ⁵ 96 hr. if nonresidents. ⁶ If under 15, order must be obtained from Probate Court. ⁷ For males only. ⁸ Except in Pamlico County, 48 hr. ⁹ Except by court order or known by judge to be over 21. ¹⁰ Marriage licenses. ¹¹ Estimated. ¹² Females 14-16 years old must have consent of Judge of Children's Court. ¹³ Marriage may not be solemnized within 3 days from date on which specimen was taken for serological test. ¹⁴ Orphans' Court may approve issuance of license to one younger than 16 years.

The 1951 U. S. marriage rate—10.4 per thousand population—showed a 37% drop from the 1946 all-time peak. Since the postwar demobilization period, marriage rates have generally fallen off as the wave of marriages reduced the number of single persons of marrying age. During the past few years the number of young persons reaching marrying age has been relatively small because of low birth rates during the business depression of the early 1930s.

Marital Status of the Population, 1950

(14 years old and over)

Source: U. S. Bureau of the Census.

State and Census division	Male				Female			
	14 yrs. old & over	Single	Married	Widowed or divorced	14 yrs. old and over	Single	Married	Widowed or divorced
Alabama.....	1,024,915	266,786	708,188	49,941	1,093,798	213,412	724,165	156,221
Arizona.....	263,546	68,104	177,562	17,880	259,511	47,636	176,600	35,275
Arkansas.....	659,656	158,910	460,166	40,580	675,397	113,687	464,118	97,592
California.....	4,034,180	982,971	2,753,112	298,097	4,073,341	646,681	2,729,233	697,427
Colorado.....	489,263	126,051	330,744	32,468	490,550	89,480	328,752	72,318
Connecticut.....	756,080	206,651	505,683	43,746	797,537	185,747	508,301	103,489
Delaware.....	117,542	29,920	80,540	7,082	122,763	25,122	80,971	16,670
D. C.....	301,111	89,087	192,729	19,295	347,872	90,420	197,282	60,170
Florida.....	1,018,121	231,006	718,055	69,060	1,065,169	163,691	722,872	178,606
Georgia.....	1,168,086	307,088	804,327	56,671	1,247,615	235,013	823,792	188,810
Idaho.....	213,170	53,850	145,650	13,670	198,781	31,992	144,491	22,298
Illinois.....	3,309,125	846,005	2,241,186	221,934	3,418,775	674,982	2,241,529	502,264
Indiana.....	1,448,831	334,960	1,014,612	99,259	1,486,515	260,592	1,012,389	213,534
Iowa.....	968,920	247,531	660,592	60,797	985,169	192,515	659,523	133,131
Kansas.....	712,198	174,053	493,294	44,851	720,732	127,650	490,911	102,171
Kentucky.....	1,039,654	282,429	695,990	61,235	1,048,459	209,319	695,284	143,856
Louisiana.....	914,015	236,374	630,055	47,586	968,553	185,330	643,519	139,704
Maine.....	331,780	89,695	217,317	24,768	342,686	74,262	217,857	50,567
Maryland.....	863,852	227,271	587,425	49,156	884,036	177,646	586,999	119,391
Massachusetts.....	1,733,192	512,784	1,109,859	110,549	1,905,814	514,744	1,117,604	273,466
Michigan.....	2,368,024	595,093	1,620,012	152,919	2,349,955	440,298	1,610,981	298,676
Minnesota.....	1,101,812	325,692	713,846	62,274	1,099,128	249,809	712,817	136,502
Mississippi.....	723,522	191,408	495,925	36,189	757,568	141,728	509,602	106,238
Missouri.....	1,466,440	348,128	1,015,421	102,891	1,556,891	290,227	1,021,911	244,753
Montana.....	227,271	65,864	144,198	17,209	202,470	34,687	141,691	26,092
Nebraska.....	498,732	134,383	334,216	30,133	497,059	98,769	333,277	65,013
Nevada.....	64,807	16,316	42,415	6,076	55,791	7,216	40,531	8,044
New Hampshire.....	197,099	53,019	129,426	14,654	207,945	46,848	130,117	30,980
New Jersey.....	1,838,965	484,286	1,251,995	102,684	1,931,114	412,255	1,258,965	259,894
New Mexico.....	233,244	66,052	154,157	13,035	223,050	44,974	152,913	25,163
New York.....	5,616,963	1,549,627	3,751,899	315,446	6,033,574	1,396,777	3,794,988	841,809
North Carolina.....	1,390,072	409,107	926,216	54,749	1,435,312	323,484	938,634	173,194
North Dakota.....	230,502	79,986	139,467	11,049	207,649	47,972	138,449	21,228
Ohio.....	2,935,808	690,429	2,138,936	206,443	3,060,868	583,658	2,034,945	442,265
Oklahoma.....	808,460	193,018	561,938	53,504	822,794	132,665	562,431	127,698
Oregon.....	576,808	131,916	401,369	43,523	561,087	84,838	397,351	78,798
Pennsylvania.....	3,904,893	1,079,197	2,584,123	241,573	4,108,599	956,851	2,604,025	547,723
Rhode Island.....	300,768	90,590	192,099	18,079	319,531	79,689	191,832	42,810
South Carolina.....	688,217	203,243	458,853	26,121	733,249	165,525	470,145	97,579
South Dakota.....	245,727	76,817	155,583	13,327	227,366	47,432	154,299	25,635
Tennessee.....	1,149,299	292,486	793,477	63,336	1,209,638	233,525	799,722	176,391
Texas.....	2,781,613	689,154	1,928,917	163,542	2,801,565	479,351	1,921,991	409,223
Utah.....	235,325	60,719	163,130	11,476	234,486	44,850	162,497	27,139
Vermont.....	136,311	39,015	87,803	9,493	141,356	32,358	87,968	21,030
Virginia.....	1,210,799	360,621	789,730	60,448	1,193,627	252,810	781,345	159,472
Washington.....	919,661	238,492	612,237	68,932	862,214	133,118	603,809	125,287
West Virginia.....	700,823	191,284	470,057	39,482	704,919	147,899	469,136	87,884
Wisconsin.....	1,278,770	357,671	841,970	79,129	1,279,013	278,454	840,508	160,051
Wyoming.....	113,645	32,940	73,125	7,580	96,526	14,978	70,764	10,784
New England.....	3,455,230	991,754	2,242,187	221,289	3,709,869	933,848	2,253,679	522,342
Middle Atlantic.....	11,360,821	3,113,110	7,588,008	659,703	12,073,287	2,765,883	7,657,978	1,649,426
East North Central.....	11,340,558	2,824,158	7,756,716	759,684	11,595,126	2,237,984	7,740,352	1,616,790
West North Central.....	5,224,331	1,386,599	3,512,419	325,322	5,293,994	1,054,374	3,511,187	728,433
South Atlantic.....	7,458,623	2,048,627	5,027,932	382,064	7,734,562	1,581,610	5,071,176	1,081,776
East South Central.....	3,937,390	1,033,109	2,693,580	210,701	4,109,463	797,984	2,728,773	582,706
West South Central.....	5,163,744	1,277,456	3,581,076	305,212	5,268,309	902,033	3,592,059	774,217
Mountain.....	1,840,271	489,896	1,250,981	119,394	1,761,165	315,813	1,218,239	227,113
Pacific.....	5,530,649	1,353,379	3,766,718	410,552	5,496,642	864,737	3,730,393	901,512
TOTAL U. S.....	55,311,617	14,518,079	37,999,617	3,393,921	57,042,417	11,454,266	37,503,836	8,084,315

Grounds for Divorce

Source: Questionnaires to the states.

State	Adultery	Cruelty	Desertion	Alcoholism	Impotence	Felony conviction	Neglect to provide	Insanity	Pregnancy at marriage ¹	Bigamy	Separation	Indignities	Drug addiction	Violence	Fraudulent contract	Others
Alabama.....	yes	yes	yes ²	yes	...	...	yes ³	yes ⁴⁶	yes	...	...	...	yes	...	...	(5,7-13)
Arizona.....	yes	yes	yes	yes	yes	yes ³	yes	...	yes	yes	yes ⁴	yes	yes	yes	yes	(12,15,16)
Arkansas.....	yes	yes	yes ²	yes	yes	yes	...	...	...	yes ¹⁴	yes	...	...	yes	yes	(7)
California.....	yes	yes	yes	...	...	yes	yes	yes ¹⁴	...	...	...	...	...	...	...	(17)
Colorado.....	yes	yes	yes ²	yes	yes	yes	yes	yes	...	yes	yes ²	...	yes	yes	...	(7)
Connecticut.....	yes	yes	yes ¹⁴	yes	...	yes ¹⁸	...	yes ⁴	...	...	...	...	...	...	yes	(10,17,19)
Delaware.....	yes	yes	yes ³	yes ³	...	yes ²⁰	yes	yes ⁴	...	yes	...	...	...	...	...	(21-23)
D. C.....	yes	...	yes ³	...	...	yes	...	...	...	...	yes ⁴	...	...	...	...	(12,17,24,47)
Florida.....	yes	yes	yes ²	...	yes	...	...	...	...	yes	...	...	...	...	...	(12,15)
Georgia.....	yes	yes	yes ²	yes	yes	yes ²⁰	...	...	yes	...	...	...	...	yes	yes	(8,9,25)
Idaho.....	yes	yes	yes	yes	...	yes	...	yes	...	yes	...	...	yes	...	yes	(10,26,27)
Illinois.....	yes	yes	yes ²	yes ²	yes	yes	...	...	...	yes	...	...	...	...	...	(10)
Indiana.....	yes	yes	yes ²	yes	yes	...	yes ²	yes ⁴	...	...	...	...	...	...	...	(12,15)
Iowa.....	yes	yes	yes ³	yes	...	yes	...	...	...	...	...	...	...	...	...	(12,15)
Kansas.....	yes	yes	yes ²	yes	yes	yes	...	yes ⁴	yes	yes	...	...	...	yes	yes	(11,22,23)
Kentucky.....	yes	yes	yes	yes	yes	yes	...	yes ⁴	yes	...	yes ⁴	...	...	yes	yes	(28,30)
Louisiana.....	yes	yes	yes	yes	...	yes	...	...	...	yes ³	...	...	...	...	...	(12)
Maine.....	yes	yes	yes	yes	yes	yes ¹⁸	yes	...	...	yes	...	yes	yes	...	...	(18)
Maryland.....	yes	...	yes ²¹	...	yes	yes ²²	...	yes ¹⁴	...	...	yes ¹⁴	...	...	...	...	(24)
Massachusetts.....	yes	yes	yes ¹⁵	yes	...	yes ²⁴	yes	...	...	...	...	...	yes	...	...	(7,12,15)
Michigan.....	yes	yes	yes ³	yes	yes	yes ²⁵	yes	...	...	...	...	...	...	...	...	(7-10)
Minnesota.....	yes	yes	yes ²	yes ²	yes	yes	...	yes ⁴	...	...	yes ³	...	...	...	...	(17)
Mississippi.....	yes	yes	yes	yes	yes	yes	...	yes ¹⁵	yes	yes	yes ²	...	yes	yes	...	(10,38)
Missouri.....	yes	yes	yes	yes	yes	yes	...	...	yes	yes	...	yes	...	...	...	(15,28)
Montana.....	yes	yes	yes	...	...	yes	yes	yes	...	...	...	...	...	...	...	(5)
Nebraska.....	yes	yes	yes	yes	yes	yes ²⁶	yes	yes ⁴	...	...	...	...	...	...	...	(16,34,39)
Nevada.....	yes	yes	yes ²	yes	yes	yes	yes	yes ³	...	...	...	...	...	yes	...	(38)
New Hampshire.....	yes	yes	yes ¹⁴	yes ¹⁴	yes	yes ⁶	yes ¹⁴	...	...	...	...	...	...	...	...	(12)
New Jersey.....	yes	yes	yes ³	...	...	...	...	...	...	...	...	...	...	...	...	(40)
New Mexico.....	yes	yes	yes	yes	yes	...	yes	...	yes	...	...	...	...	...	...	(7)
New York.....	yes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(28,41)
North Carolina.....	yes	...	...	...	yes	...	...	yes ²⁷	yes	...	yes ³	...	...	...	...	(19)
North Dakota.....	yes	yes	yes ²	yes ²	...	yes	yes ²	yes ⁴	...	...	...	yes ²	...	...	...	(13,42,43)
Ohio.....	yes	yes	...	yes ¹⁴	yes	yes	...	...	...	yes	...	...	...	yes	...	(44)
Oklahoma.....	yes	yes	yes ²	yes	yes	yes	yes	yes ⁴	yes	yes	...	...	...	...	...	(3,9,10)
Oregon.....	yes	yes	yes ²⁸	yes ²	yes	yes	...	yes ⁴	...	...	...	yes	...	...	...	(12)
Pennsylvania.....	yes	yes	yes ³	...	yes ⁴⁵	yes ²⁰	...	...	...	yes	...	yes	...	yes	...	(40)
Rhode Island.....	yes	yes	yes ⁴	yes	yes	...	yes	...	...	...	...	...	yes	...	...	(7)
South Carolina.....	yes	yes	yes ²	yes	...	...	...	...	...	...	...	...	...	...	...	(28,41)
South Dakota.....	yes	yes ²	yes ²	...	...	yes	yes ²	yes ²	...	...	...	...	...	...	...	(19)
Tennessee.....	yes	...	yes ³	yes	yes	yes	...	...	yes	yes	...	...	...	...	...	(13,42,43)
Texas.....	yes	yes	yes ¹⁴	...	...	yes ⁴	...	yes ⁴	...	...	yes ²⁷	...	...	...	...	(44)
Utah.....	yes	yes	yes	yes	yes	yes	yes	yes	...	...	yes ¹⁴	...	...	...	...	(3,9,10)
Vermont.....	yes	yes	yes ¹⁴	...	...	yes ²⁶	yes	yes ⁴	...	...	yes ¹⁴	...	...	...	...	(19)
Virginia.....	yes	...	yes ²	...	yes	yes	...	...	yes	...	...	...	...	...	...	(13,42,43)
Washington.....	yes	yes	yes ³	yes	yes	yes	yes	yes ³	...	...	yes ⁴	yes	...	...	yes	(44)
West Virginia.....	yes	yes	yes ²	yes	...	yes	...	...	...	...	...	...	yes	...	...	(3,9,10)
Wisconsin.....	yes	yes	yes ²	yes	yes	yes ²⁶	...	...	...	yes ⁴	...	...	...	...	...	(44)
Wyoming.....	yes	yes	yes ²	yes	yes	yes	yes ²	yes ³	yes	...	yes ³	yes	...	...	...	(3,9,10)

¹ If unknown to husband. ² 1 year. ³ 2 years. ⁴ 5 years. ⁵ Crime against nature. ⁶ With imprisonment of 1 year. ⁷ Absence of 1 year. ⁸ Felony before marriage. ⁹ Husband a vagrant. ¹⁰ Infamous crime. ¹¹ Loathsome disease. ¹² Relationship within prohibited degree. ¹³ Wife a prostitute. ¹⁴ 3 years. ¹⁵ Absence of 3 years. ¹⁶ In-sanity at time of marriage. ¹⁷ Habitual intemperance. ¹⁸ With imprisonment for life. ¹⁹ Absence of 7 years. ²⁰ With imprisonment of 2 years. ²¹ Wife under 16 at time of marriage. ²² Husband under 18 at time of marriage. ²³ Feeble-mindedness or epilepsy for 5 years. ²⁴ Defendant obtained divorce from plaintiff in any other state or country. ²⁵ Absence. ²⁶ Attempt by one party on life of other. ²⁷ Infected other party with communicable venereal disease. ²⁸ Joining a religious cult disbelieving in marriage. ²⁹ Unchaste behavior of wife after marriage. ³⁰ Public defama-tion. ³¹ 18 months. ³² With imprisonment of 3 years, 18 months of which have been served. ³³ Any cause which, by laws of state, renders marriage null and void at its inception. ³⁴ With imprisonment of 5 years. ³⁵ With impris-onment of 3 years. ³⁶ Noncohabitation for 3 years. ³⁷ 10 years. ³⁸ 1 year, if contracted after marriage. ³⁹ Gross neglect of duty. ⁴⁰ Any other gross misbehavior or wickedness. ⁴¹ Absence of 2 years. ⁴² Infamous crime before marriage. ⁴³ Fugitive from justice and absent for 2 years. ⁴⁴ Absence of 5 years. ⁴⁵ If at time of marriage and incurable. ⁴⁶ 7 years. ⁴⁷ Ungovernable temper. ⁴⁸ Noncohabitation for 2 years.

Divorce Information, by State

Sources: Questionnaires to states; and Federal Security Agency, Public Health Service.

State	Residence for divorce	Period before parties may remarry		Divorces	
		Plaintiff	Defendant	1950 ¹	1951 ²
Alabama.....	1 yr.	60 da. ³	60 da. ⁴	8,743	8,766
Arizona.....	1 yr.	1 yr.	1 yr.	4,062	4,240 ⁷
Arkansas.....	90 da.	none	none	8,800 ⁷	...
California.....	1 yr.	1 yr.	1 yr.	33,833	38,542
Colorado.....	1 yr.	6 mo.	6 mo.	4,400 ⁷	4,400 ¹
Connecticut.....	3 yr.	none	none	2,712	2,635
Delaware.....	2 yr.	none	none	637	600
D. C.....	1 yr. ⁵	6 mo.	6 mo.	1,697	1,383
Florida.....	90 da.	none	none	18,033	18,675
Georgia.....	1 yr.	30 da.	30 da.	9,514	...
Idaho.....	6 wk.	6 mo.	6 mo.	2,696	2,538
Illinois.....	1 yr.	none	none	23,002	23,716
Indiana.....	1 yr.	none	none	11,600 ⁷	...
Iowa.....	1 yr.	1 yr. ¹⁸	1 yr. ¹⁹	5,404	5,105
Kansas.....	1 yr.	6 mo.	6 mo.	5,000 ⁷	4,722
Kentucky.....	1 yr.	none	none	8,100 ⁷	...
Louisiana.....	1 yr.	none ⁸	none ⁸	5,400 ⁷	...
Maine.....	1 yr.	none	none	2,175	2,010
Maryland.....	1 yr.	none	none	5,039	4,978
Massachusetts.....	5 yr.	6 mo.	2 yr.	6,515	...
Michigan.....	1 yr.	none	(⁹)	15,979	...
Minnesota.....	1 yr.	6 mo.	6 mo.	4,049	3,864
Mississippi.....	1 yr.	(¹⁰)	(¹⁰)	6,065	4,918
Missouri.....	1 yr.	none	none	12,177	11,632
Montana.....	1 yr.	none	none	1,951	1,940
Nebraska.....	1 yr.	6 mo.	6 mo.	2,554	2,356
Nevada.....	6 wk.	none	none	8,909	...
New Hampshire.....	1 yr.	none	none	1,040	1,084
New Jersey.....	2 yr.	none	none	5,434	4,896
New Mexico.....	1 yr.	none	none	2,656	2,942
New York.....	(¹¹)	none	3 yr. ¹²	11,700 ⁷	...
North Carolina.....	2 yr.	none	none	6,361	...
North Dakota.....	1 yr.	(⁹)	(⁹)	589	592
Ohio.....	1 yr.	none	none	21,853	20,922
Oklahoma.....	1 yr.	6 mo.	6 mo.	13,900 ⁷	...
Oregon.....	1 yr.	6 mo.	6 mo.	5,943	...
Pennsylvania.....	1 yr.	none	none	12,140	10,688
Rhode Island.....	2 yr.	none	none	907	...
South Carolina.....	1 yr.	none	none	2,300 ⁷	...
South Dakota.....	1 yr.	none	none ¹⁴	929	865
Tennessee.....	2 yr.	none	none ¹⁵	7,828	7,262
Texas.....	1 yr.	1 yr. ¹⁹	1 yr. ¹⁹	37,400 ⁷	...
Utah.....	3 mo.	6 mo.	6 mo.	2,107	2,259
Vermont.....	1 yr.	none	2 yr. ¹⁵	678	585
Virginia.....	1 yr.	4 mo.	4 mo.	5,941	6,003
Washington.....	1 yr.	none	none	11,197	8,600 ⁷
West Virginia.....	1 yr. ¹⁶	6 da.	(¹⁷)	4,200 ⁷	...
Wisconsin.....	2 yr.	1 yr.	1 yr.	4,845	4,273
Wyoming.....	60 da.	none	none	1,151	1,159

¹ Revised figures; include reported annulments. ² Provisional figures; include reported annulments. Leaders () indicate data unavailable. ³ Divorced persons may remarry each other at any time. ⁴ At discretion of court. ⁵ 1949. ⁶ 2 yr. if cause for divorce occurred outside D. C. ⁷ Estimated. ⁸ For husband; 10 mo. for wife. In case of adultery, guilty party cannot marry accomplice. ⁹ Time set in decree; not to exceed 2 yr. ¹⁰ Until court is adjourned that grants the divorce. ¹¹ Action for divorce may be maintained where: (1) both parties were residents of state when offense was committed; (2) parties were married within state; (3) plaintiff was resident of state when offense was committed and is resident when action is commenced; (4) offense was committed within state and injured party is resident of state when action is commenced. ¹² By modification of decree by court. ¹³ Partly guilty of adultery may never marry the correspondent. ¹⁴ In case of adultery, guilty party may not marry, except to innocent party, until death of innocent party. ¹⁵ Period may be shortened by court. ¹⁶ 2 years if residence is acquired after cause of divorce action arose. No residence required in case of adultery if personal service can be had within state. ¹⁷ 60 days to 1 year. ¹⁸ Unless otherwise set out by judge. ¹⁹ For cruelty only, but technically not usually observed.

Marriages and Divorces in the United States, 1890-1951

Source: Federal Security Agency, Public Health Service.

Year	Marriages	Rate ¹	Divorces ²	Rate ¹	Year	Marriages	Rate ¹	Divorces ²	Rate ¹
1890	570,000	9.0	33,461	.5	1925	1,188,334	10.3	175,449	1.5
1895	620,000	8.9	40,387	.6	1926	1,202,574	10.2	184,678	1.6
1900	709,000	9.3	55,751	.7	1927	1,201,053	10.1	196,292	1.6
1901	742,000	9.6	60,984	.8	1928	1,182,497	9.8	200,176	1.7
1902	776,000	9.8	61,480	.8	1929	1,232,559	10.1	205,876	1.7
1903	818,000	10.1	64,925	.8	1930	1,126,856	9.2	195,961	1.6
1904	815,000	9.9	66,199	.8	1931	1,060,914	8.6	188,003	1.5
1905	842,000	10.0	67,976	.8	1932	981,903	7.9	164,241	1.3
1906	895,000	10.5	72,062	.8	1933	1,098,000	8.7	165,000	1.3
1907	936,936	10.8	76,571	.9	1934	1,302,000	10.3	204,000	1.6
1908	857,461	9.7	76,852	.9	1935	1,327,000	10.4	218,000	1.7
1909	897,354	9.9	79,671	.9	1936	1,369,000	10.7	236,000	1.8
1910	948,166	10.3	83,045	.9	1937	1,451,296	11.3	249,000	1.9
1911	955,287	10.2	89,219	1.0	1938	1,330,780	10.3	244,000	1.9
1912	1,004,602	10.5	94,318	1.0	1939	1,403,633	10.7	251,000	1.9
1913	1,021,398	10.5	91,307	.9	1940	1,595,879	12.1	264,000	2.0
1914	1,025,092	10.3	100,584	1.0	1941	1,695,999	12.7	293,000	2.2
1915	1,007,595	10.0	104,298	1.0	1942	1,772,132	13.2	321,000	2.4
1916	1,075,775	10.6	114,000	1.1	1943	1,577,050	11.8	359,000	2.6
1917	1,144,200	11.1	121,564	1.2	1944	1,452,394	11.0	400,000	2.9
1918	1,000,109	9.7	116,254	1.1	1945	1,612,992	12.2	485,000	3.5
1919	1,150,186	11.0	141,527	1.3	1946	2,291,045	16.4	610,000	4.3
1920	1,274,476	12.0	170,505	1.6	1947	1,991,878	13.9	483,000	3.4
1921	1,163,863	10.7	159,580	1.5	1948	1,811,155	12.4	408,000	2.8
1922	1,134,151	10.3	148,815	1.4	1949	1,579,798	10.6	397,000	2.7
1923	1,229,784	11.0	165,096	1.5	1950	1,667,231	11.0	385,144	2.5
1924	1,184,574	10.4	170,952	1.5	1951 ³	1,594,904	10.4	371,000	2.4

¹ Per 1,000 population. For 1917-19 and 1940-46, marriage rates based on population excluding armed forces overseas, and divorce rates based on population including armed forces overseas. For 1947-51, all rates based on population excluding armed forces overseas. ² Includes annulments. ³ Provisional figures. NOTE: Figures for marriages for all years include partial or complete estimates for some states; figures for divorces are estimated, except for 1900, 1905 and 1925-32.

Marriage Prospects of Single Men and Women

Source: U. S. Bureau of the Census.

Age	Per cent of population single ¹		Per cent who ever marry ²		Age	Per cent of population single ¹		Per cent who ever marry ²	
	Male	Female	Male	Female		Male	Female	Male	Female
15	99.8	98.8	92.2	93.5	31	21.0	14.7	67.5	50.8
16	99.7	96.1	92.4	93.5	32	20.9	14.7	63.0	46.4
17	99.3	91.0	92.5	93.5	33	18.6	13.0	58.5	42.1
18	97.9	82.3	92.6	93.3	34	17.2	12.6	54.1	38.0
19	94.6	73.0	92.7	92.9	35	15.3	11.2	49.7	34.3
20	89.1	62.8	92.6	92.1	36			45.6	31.0
21	81.0	54.4	92.3	90.8	37			41.6	27.9
22	72.8	46.2	91.8	89.0	38			38.1	25.2
23	62.9	38.7	90.9	86.3	39			34.8	22.6
24	54.3	32.9	89.6	82.8	40	12.6 ³	9.5 ³	31.7	20.2
25	46.9	28.6	88.0	78.5	45	11.2 ³	8.6 ³	19.1	11.3
26	40.8	25.1	85.9	73.7	50	11.0 ³	8.7 ³	11.1	6.1
27	35.0	22.0	83.4	68.9	55	10.8 ³	8.7 ³	6.2	3.2
28	30.6	20.1	80.3	64.4	60	10.5 ³	9.3 ³	3.3	1.6
29	26.2	17.7	76.6	59.9	65 and over	9.8	9.3	1.9	.8
30	25.2	17.9	72.3	55.3					

¹ Per cent single within the specified year of age in 1940, except as specified in footnote 3. ² Per cent of persons single at beginning of year of age who marry during that year and all later years. This figure indicates the total chance of first marriage for single persons who have attained the specified age. ³ Per cent single in age group 40-44, 45-49, etc.; data for single years not available. NOTE: "Single" means those never married; that is, it excludes widowed and divorced. Hence, "marriage prospects" refers to likelihood of first marriage only.

Hospital Facilities in the U. S., 1951

Source: American Medical Association.

State	General	Nervous & mental	Tuberculosis	Maternity	Industrial	Eye, ear, nose, throat	Children's	Other	TOTALS		
									Hospitals	Beds	Patients
Alabama.....	88	7	7	1	—	—	1	7	111	20,450	274,918
Arizona.....	53	2	11	—	—	—	—	3	69	7,182	112,930
Arkansas.....	65	2	2	—	2	—	1	1	73	15,041	173,986
California.....	271	44	26	10	2	2	4	26	385	113,044	1,336,314
Colorado.....	76	9	8	2	1	—	1	6	103	19,745	222,657
Connecticut.....	37	15	6	—	—	—	—	13	71	23,756	257,073
Delaware.....	9	3	2	—	—	—	—	2	16	4,384	41,978
D. C.....	16	2	1	2	—	1	1	5	28	16,497	167,395
Florida.....	114	8	5	3	—	1	2	8	141	22,600	326,346
Georgia.....	107	7	1	1	2	1	1	9	129	26,915	376,974
Idaho.....	45	3	1	1	—	—	—	2	52	4,451	76,334
Illinois.....	227	31	28	5	2	3	3	42	341	102,644	1,115,604
Indiana.....	102	14	10	—	1	1	1	8	137	30,454	424,576
Iowa.....	107	12	5	2	—	—	—	5	131	22,620	302,416
Kansas.....	113	7	3	2	2	—	—	8	134	19,177	257,541
Kentucky.....	86	11	9	1	1	—	1	6	116	23,579	298,227
Louisiana.....	101	6	4	1	1	1	—	4	118	22,594	360,729
Maine.....	43	5	4	—	—	—	—	1	53	8,718	92,050
Maryland.....	48	15	6	—	—	2	—	11	82	26,517	261,090
Massachusetts.....	141	32	23	4	—	2	3	15	220	65,228	537,027
Michigan.....	178	23	23	2	2	1	1	26	256	64,650	783,263
Minnesota.....	164	17	12	3	—	1	1	14	212	31,316	439,884
Mississippi.....	85	6	1	—	—	—	—	2	94	13,550	202,391
Missouri.....	112	15	7	7	3	1	2	16	163	37,948	433,975
Montana.....	52	1	1	—	1	1	—	1	57	5,914	100,193
Nebraska.....	98	5	1	2	—	—	1	5	112	13,844	182,837
Nevada.....	15	1	—	—	—	—	—	—	16	1,408	25,651
New Hampshire.....	33	2	2	—	—	—	—	3	40	6,322	74,292
New Jersey.....	86	22	14	2	—	1	1	32	158	91,923	508,923
New Mexico.....	36	4	5	—	1	—	—	1	47	4,482	68,273
New York.....	314	58	49	9	2	7	4	68	511	220,831	1,868,844
North Carolina.....	134	10	19	2	1	2	1	7	176	29,879	475,839
North Dakota.....	42	2	1	1	—	—	—	1	47	6,718	92,968
Ohio.....	153	28	24	9	1	—	3	25	243	69,685	883,321
Oklahoma.....	101	7	4	1	—	—	—	6	119	18,591	224,703
Oregon.....	61	6	4	1	—	—	—	4	76	11,759	188,955
Pennsylvania.....	230	39	16	7	—	5	5	41	343	107,104	1,181,545
Rhode Island.....	15	4	2	1	—	—	—	2	24	9,709	81,008
South Carolina.....	55	3	5	—	—	1	—	1	65	15,445	217,095
South Dakota.....	53	3	2	—	—	—	—	1	59	7,243	102,654
Tennessee.....	97	12	8	1	—	7	1	9	135	24,474	334,655
Texas.....	449	17	19	4	5	9	3	21	527	58,348	1,020,969
Utah.....	28	2	1	1	—	—	1	1	34	4,601	79,979
Vermont.....	23	3	2	—	—	—	—	1	29	4,161	51,698
Virginia.....	92	11	7	—	1	3	—	6	120	32,088	396,460
Washington.....	104	8	12	1	1	—	—	7	133	26,794	370,725
West Virginia.....	63	7	5	—	—	—	—	5	80	14,305	241,267
Wisconsin.....	140	42	21	1	—	—	1	14	219	36,663	473,825
Wyoming.....	28	3	1	—	—	—	—	—	32	3,637	54,761
Total, 1951.....	4,890 ¹	596 ²	430 ³	90 ⁴	32 ⁵	53 ⁶	44 ⁷	502 ⁸	6,637	1,529,988	18,237,118
Total, 1950.....	4,713	579	431	92	27	51	44	493	6,430	1,456,912	17,023,513
Total, 1949.....	4,761	606	444	102	33	52	42	532	6,572	1,439,030	16,659,973
Total, 1948.....	4,589	586	438	100	33	46	39	504	6,335	1,423,520	16,422,774
Total, 1947.....	4,539	585	441	100	33	44	41	493	6,276	1,425,222	15,829,514
Total, 1945.....	4,744	563	449	106	36	42	44	487	6,511	1,738,944	16,257,402
Total, 1940.....	4,432	602	479	116	33	41	46	542	6,291	1,226,245	10,087,548

¹ Beds—patients admitted: 640,207—17,065,821; * 728,187—307,010; * 88,379—107,181; * 4,632—105,663; * 2,837—60,961; * 2,505—114,510; * 7,133—136,043. * Includes (hospitals—beds—patients admitted): orthopedic, 82—6,708—33,009; isolation, 49—9,516—101,026; convalescent and rest, 120—7,115—38,057; hospital departments of institutions, 183—19,905—134,414; all other, 77—14,774—34,427.

Sentenced Federal Prisoners Received from Courts, 1935-1951

Fiscal years ending June 30

Source: Federal Bureau of Prisons.

Offense	1935	1945	1946	1947	1948	1949	1950	1951
National-security offenses:								
Selective Service Act.....		2,613	1,446	833	236	226*	136†	124‡
Other national-defense and -security laws.....		2,150	1,143	578	319	182	130	155
Military court-martial cases: { Army.....	25	1,793	2,176	2,014	851	592	606	775
{ Navy.....		22	40	50	267	88	107	18
Total.....	25	6,588	4,805	3,475	1,673	1,088	979	1,072
Other Federal offenses:								
Counterfeiting and forgery.....	1,848	673	891	1,083	1,018	1,204	1,534	1,438
Embezzlement and fraud.....	483	340	350	396	531	582	609	535
Immigration laws.....	2,509	3,996	3,629	3,989	3,200	3,526	3,463	4,334
Juvenile Delinquency Act§.....		911	1,221	870	677	607	658	684
Kidnaping.....	38	20	21	32	36	23	41	26
Liquor laws.....	12,036	2,988	2,425	1,996	1,838	2,035	2,304	2,323
National Bank and Federal Reserve Act.....	129	51	69	50	141	90	165	142
Narcotic-drug laws.....	2,115	1,134	1,261	1,447	1,443	1,503	2,029	2,063
National Motor Vehicle Theft Act.....	1,252	1,072	1,997	2,740	2,612	2,471	2,486	2,392
Theft from interstate commerce.....	333	475	448	524	430	378	270	327
White Slave Traffic Act.....	150	209	157	183	221	160	185	182
Govt. reservation, D. C., high seas terr. cases.....	700	986	873	974	1,069	1,054	1,145	1,272
Other.....	1,871	1,757	1,965	1,867	1,898	2,012	2,195	2,160
Total.....	23,464	14,612	15,307	16,151	15,114	15,645	17,084	17,878
Total all offenses.....	23,489	21,200	20,112	19,626	16,787	16,733	18,063	18,509

* Act of 1940: 152; Act of 1948: 74. † Act of 1940: 97; Act of 1948: 39. ‡ Act of 1940: 9; Act of 1948: 115. § Offenses committed by persons 17 years of age or under upon which action was taken under the Federal Juvenile Delinquency Act of 1938.

Methods of Execution in the United States

State	Method	State	Method
Alabama	Electrocution	New Jersey	Electrocution
Arizona	Lethal gas	New Mexico	Electrocution
Arkansas	Electrocution	New York	Electrocution
California	Lethal gas	North Carolina	Lethal gas
Colorado	Lethal gas	North Dakota	No death penalty
Connecticut	Electrocution	Ohio	Electrocution
Delaware	Hanging	Oklahoma	Electrocution
D. C.	Electrocution	Oregon	Lethal gas
Florida	Electrocution	Pennsylvania	Electrocution
Georgia	Electrocution	Rhode Island	No death penalty
Idaho	Hanging	South Carolina	Electrocution
Illinois	Electrocution	South Dakota	Electrocution
Indiana	Electrocution	Tennessee	Electrocution
Iowa	Hanging	Texas	Electrocution
Kansas	Hanging	Utah	Hanging
Kentucky	Electrocution		or shooting
Louisiana	Electrocution	Vermont	Electrocution
Maine	No death penalty	Virginia	Electrocution
Maryland	Hanging	Washington	Hanging
Massachusetts	Electrocution	West Virginia	Electrocution
Michigan	No death penalty	Wisconsin	No death penalty
Minnesota	No death penalty	Wyoming	Lethal gas
Mississippi	Electrocution	U. S. (Fed. Gov't.) ..	(1)
Missouri	Lethal gas	Alaska	Hanging
Montana	Hanging	Canal Zone	Hanging
Nebraska	Electrocution	Hawaii	Hanging
Nevada	Lethal gas	Puerto Rico	No death penalty
New Hampshire	Hanging	Virgin Islands	Hanging

¹ Method shall be that used by state in which sentence is imposed. If state does not have death penalty, Federal judge shall prescribe method for carrying out death sentence. NOTE: Method shown with each state is maximum penalty for murder and certain other crimes. In most states having capital punishment, jury or judge can specify whether sentence shall be death or life imprisonment.

Distribution of Arrests by Sex, 1951

Source: Federal Bureau of Investigation.

Offense charged	Males	Per cent	Females	Per cent	Total	Per cent
Criminal homicide.....	5,614	.8	908	1.1	6,522	.8
Robbery.....	17,077	2.3	920	1.1	17,997	2.2
Assault.....	54,676	7.3	6,963	8.2	61,639	7.4
Burglary—breaking or entering.....	41,279	5.5	1,136	1.3	42,415	5.1
Larceny—theft.....	60,889	8.2	8,200	9.6	69,089	8.3
Auto theft.....	19,742	2.6	480	.6	20,222	2.4
Embezzlement and fraud.....	17,875	2.4	1,980	2.3	19,855	2.4
Stolen property; buying, receiving, etc.....	3,187	.4	292	.3	3,479	.4
Arson.....	888	.1	115	.1	1,003	.1
Forgery and counterfeiting.....	9,045	1.2	1,439	1.7	10,484	1.3
Rape.....	8,971	1.2	...	...	8,971	1.1
Prostitution and commercialized vice.....	3,606	.5	5,609	6.6	9,215	1.1
Other sex offenses.....	17,125	2.3	3,048	3.6	20,173	2.4
Narcotic-drug laws.....	11,052	1.5	1,978	2.3	13,030	1.6
Weapons; carrying, possessing, etc.....	9,269	1.2	454	.5	9,723	1.2
Offenses against family and children.....	15,762	2.1	915	1.1	16,677	2.0
Liquor laws.....	10,522	1.4	2,380	2.8	12,902	1.6
Driving while intoxicated.....	57,234	7.7	2,676	3.1	59,910	7.2
Road and driving laws.....	17,492	2.3	468	.5	17,960	2.2
Parking violations.....	473	.1	30	*	503	.1
Other traffic and motor-vehicle laws.....	15,273	2.0	607	.7	15,880	1.9
Disorderly conduct.....	39,821	5.3	6,866	8.1	46,687	5.6
Drunkenness.....	173,865	23.5	17,590	20.8	191,455	23.0
Vagrancy.....	39,015	5.2	7,795	9.1	46,810	5.6
Gambling.....	16,474	2.2	2,170	2.5	18,644	2.2
Suspicion.....	37,885	5.1	5,209	6.1	43,094	5.2
Not stated.....	7,780	1.0	910	1.1	8,690	1.0
All other offenses.....	34,164	4.6	4,095	4.8	38,259	4.6
Total arrests, 1951.....	746,055	100.0	85,233	100.0	831,288	100.0

* Less than 1/10 of 1 per cent.

Arrests by Age Groups, 1951

Age	Arrests	Age	Arrests	Age	Arrests	Age	Arrests	Age	Arrests
Under 15.....	3,492	18.....	28,775	22.....	29,996	30-34.....	114,266	50 and over....	89,053
15.....	4,276	19.....	27,369	23.....	30,625	35-39.....	100,694	Not known.....	606
16.....	10,931	20.....	26,273	24.....	29,817	40-44.....	83,958		
17.....	18,560	21.....	29,833	25-29.....	140,184	45-49.....	62,580		

Total Arrests for Previous Years

Year	Arrests	Year	Arrests	Year	Arrests	Year	Arrests
1943.....	490,764	1945.....	543,852	1947.....	734,041	1949.....	792,029
1944.....	488,979	1946.....	645,431	1948.....	759,698	1950.....	793,671

Estimated Number of Major Crimes in the U. S., 1946-51

Source: Federal Bureau of Investigation.

Crime	1946	1947	1948	1949	1950	1951
Murder and nonnegligent manslaughter.....	8,442	7,760	7,620	6,990	7,020	6,820
Manslaughter by negligence.....	4,701	5,770	5,390	4,880	5,330	5,510
Rape.....	12,117	17,180	16,180	16,380	16,580	16,800
Robbery.....	62,782	58,100	54,990	59,120	53,230	52,090
Aggravated assault.....	67,512	74,690	77,310	78,860	80,950	78,640
Burglary—breaking or entering.....	357,991	373,450	377,640	409,400	411,980	407,130
Larceny—theft.....	941,738	943,430	978,000	1,024,520	1,044,160	1,118,210
Auto theft.....	229,920	184,730	169,540	163,140	170,780	196,960
Total major crimes.....	1,685,203	1,665,110	1,686,670	1,763,290	1,790,030	1,882,160

Motor Vehicle Laws as of January 1, 1952

Source: American Automobile Association.

State	Speed limit ¹	Date new license plates can be used	Driving license Required	Minimum age	Gasoline tax	Per cent sales tax	Period of stay ²	Safety responsibility law	Certificate of title required
Alabama.....	A	Oct. 1	yes	16	\$.06	1	Reciprocal	yes	no
Arizona.....	60 B	Dec. 15	yes	18	.05	2	(⁴)	yes	yes
Arkansas.....	55	Jan. 1	yes	18	.065	2	90 days ⁵	yes	yes
California.....	55 pf	Jan. 1	yes	16	.045	3	(¹²)	yes	yes
Colorado.....	60	On issue	yes	16	.06	2	Reciprocal	yes	yes
Connecticut.....	45 J	Feb. 15	yes	16	.04	2 ⁴	Reciprocal	yes	no
Delaware.....	50 C	(⁷)	yes	16	.05	...	Reciprocal	yes	yes
D. C.....	25 K	Mar. 1	yes	16	.04	2 ⁹	Reciprocal	yes	yes
Florida.....	60 pf D	Jan. 5	yes	16	.07	...	Reciprocal	yes	yes
Georgia.....	55	Jan. 1	yes	16	.06	3	30 days	yes	no
Idaho.....	A	Jan. 2	yes	16	.06	...	Reciprocal	yes	yes
Illinois.....	A	On issue	yes	15	.04	2	Reciprocal	yes	yes
Indiana.....	A	Jan. 2	yes	16	.04	...	60 days	yes	yes
Iowa.....	A	Dec. 1	yes	16	.04	2	Reciprocal	yes	no
Kansas.....	A	Jan. 1	yes	16	.05	2	(¹³)	yes	yes
Kentucky.....	60 D	Dec. 29	yes	16	.07	3 ⁸	Reciprocal	yes	(⁹)
Louisiana.....	60	Jan. 1	yes	15	.09	2	Reciprocal	no	yes
Maine.....	45	Dec. 25	yes	15	.06	2	Reciprocal	yes	no
Maryland.....	50 E	Mar. 1	yes	16	.05	2	90 days	yes	yes
Massachusetts.....	40 pf A	Jan. 1	yes	16	.043	(⁹)	Reciprocal ¹⁰	(¹¹)	no
Michigan.....	A	On issue	yes	16	.045	3	90 days	yes	yes
Minnesota.....	60 pf D	Nov. 1	yes	15	.05	...	90 days	yes	no
Mississippi.....	60	Nov. 1	yes	17	.07	2	(¹²)	no	no
Missouri.....	A	On issue	yes	16	.02	2	Reciprocal	yes	yes
Montana.....	55 A	Jan. 1	yes	15	.06	...	30 days ^{12, 14}	yes	yes
Nebraska.....	60 F	Jan. 1	yes	15½	.05	...	(¹² 15)	yes	yes
Nevada.....	A	Dec. 15	yes	16	.055	...	No limit	yes	yes
New Hampshire.....	50	Mar. 1	yes	16	.05	...	Reciprocal	yes	no
New Jersey.....	50 K	Mar. 1	yes	17	.03	...	Reciprocal	yes	yes
New Mexico.....	60 F	Dec. 15	yes	14	.06	2	90 days	yes	yes
New York.....	50	Jan. 1	yes	18	.04	...	Reciprocal	yes	no
North Carolina.....	55	Dec. 1	yes	16	.07	3 ¹⁴	Reciprocal	yes	yes
North Dakota.....	50 G	On issue	yes	16	.05	2	Reciprocal	yes	yes
Ohio.....	50 pf	Mar. 1	yes	16	.04	3	Reciprocal	yes	yes
Oklahoma.....	65 I	Dec. 11	yes	16	.065	2	60 days ¹⁷	yes	yes
Oregon.....	55	On issue	yes	16	.06	...	Reciprocal	yes	yes
Pennsylvania.....	50	Mar. 15	yes	18	.05	...	Reciprocal	yes	yes
Rhode Island.....	50 H	Mar. 1	yes	16	.04	2	Reciprocal	yes	no
South Carolina.....	55	Sept. 18	yes	14	.07	...	90 days	no	no
South Dakota.....	60 F	Jan. 1	no	15	.05	3 ⁸	90 days	yes	yes
Tennessee.....	A	Mar. 1	yes	16	.07	2	30 days	yes	yes
Texas.....	60 I	Feb. 1	yes	16	.04	1.1	Reciprocal	yes	yes
Utah.....	60 F	Dec. 15	yes	16	.05	2	Reciprocal	yes	yes
Vermont.....	50	Mar. 1	yes	18	.05	...	Reciprocal	yes	no
Virginia.....	50 E	Mar. 15	yes	15	.06	...	6 months	yes	yes
Washington.....	50	Nov. 15	yes	16	.065	3	Reciprocal	yes	yes
West Virginia.....	55	June 20	yes	16	.05	...	90 days	yes	yes
Wisconsin.....	65 I	On issue	yes	16	.04	...	Reciprocal	yes	yes
Wyoming.....	60 pf	Dec. 1	yes	15	.05	2	90 days	yes	yes

¹ A—reasonable and proper; B—lower speed at night and on old highways; C—55 mph on 4-lane highways; D—50 mph at night; E—55 mph at night; F—60 mph on dual-lane highways; G—50 mph at night; H—45 mph at night; I—55 mph at night; J—parkways to 55 mph where marked; K—unless otherwise marked; pf—prima facie limit. ² Applies to nonresidents. The term "reciprocal" means that the state will extend to a nonresident the identical privileges granted by his home state to nonresident motorists. In some states, visitors must register within a specified time. In most states, persons who intend to reside permanently must buy new plates and secure new driving license at once, or within a limited time. Acquisition of employment or placing children in public school is often considered intention to reside permanently. ³ Registry tax on first registration in state. ⁴ Visitor's permit required after 10 days. ⁵ Visitors must register after 30 days. ⁶ Use tax on new cars, first registration of used cars. ⁷ Three months before current registration expires. ⁸ Bill of sale must be filed. ⁹ Excise tax. ¹⁰ Public liability insurance before current registration expires. ¹¹ State has compulsory insurance. ¹² Visitors must register immediately. ¹³ Until maximum. ¹⁴ Extension granted. ¹⁵ Nebraska operator's license required in 30 days. ¹⁶ \$15 maximum. ¹⁷ Visitors must register within 15 days.

EDUCATION

Elementary and Secondary Public School Statistics, 1950-51

Source: Information Please Almanac Questionnaire.

Note: The number of schools includes rural and one-room school houses. The number of pupils includes only full-time students. The average yearly expenditure is based on the average daily attendance.

State	Elementary			Secondary			Average yearly expenditure per pupil	Average yearly salary of teachers
	No. schools	No. pupils	No. teachers	No. schools	No. pupils	No. teachers		
Alabama.....	(1)	443,255	13,332	(1)	237,752	8,908	\$109.99	\$2,127.00
Arizona.....	455	129,689	3,959	79	31,639	1,370	210.25 ^a	3,728.00 ^a
Arkansas.....	1,751	345,501	7,936	603	83,094	5,314	100.00	1,762.00
California.....	3,708 ^c	1,291,236 ^a	40,032 ^b	751 ^b	514,816 ^b	21,636 ^b	253.88	3,990.00 ^b
Colorado.....	1,471 ^a	124,674 ^a	5,588 ^a	355 ^a	84,570 ^a	3,483 ^a	190.57 ^a	3,155.00
Connecticut.....	693	217,059	6,777	125	78,665	3,732	223.66	3,480.00
Delaware.....	109	28,800	1,030	53 ^a	18,740	906	280.65	3,654.00
Washington, D. C.....	120 ^b	61,082 ^b	1,758 ^b	36 ^b	34,850 ^b	1,652 ^b	259.74	4,270.00 ^b
Florida.....	1,370	334,836	10,256	740	190,963	7,520	179.82	2,987.21
Georgia.....	2,237	613,791	16,678	1,335	173,789	7,250	119.17	2,094.00
Idaho.....	610	90,862	2,481	152	37,330	1,658	159.67	2,805.00
Illinois.....	2,958	898,000	33,273	398	306,217	15,171	247.06	2,914.97
Indiana ^a	1,706	381,225	13,307	796	266,661	10,751	186.12	3,065.95
Iowa.....	6,139	370,614	(7)	905	114,935	(7)	220.00	2,689.00
Kansas.....	3,883	269,498	10,821	718	85,985	6,788	241.25	2,828.00 ^b
Kentucky.....	4,550 ¹¹	466,338	12,670	113 ¹¹	97,060	5,337	135.84	2,054.15
Louisiana.....	2,156	480,606	14,164	820	109,442	5,927	205.39	3,061.51
Maine ^a	1,468	124,058	4,596	211	34,189	1,820	169.15	2,152.97
Maryland.....	836	240,447	6,881 ^a	219	126,422	5,524 ^a	206.00	3,610.00 ^b
Massachusetts.....	1,692	395,217	15,085 ^a	443	198,797	10,311	214.40	3,549.00 ^a
Michigan ^a	4,809	678,125	22,767	655	363,412	14,390	278.97	3,334.00
Minnesota.....	4,869	332,901	12,360	645	179,560	8,921	227.00	2,855.00 ^a
Mississippi.....	972	470,464	4,782	496	85,651	11,111	81.94	1,460.47
Missouri ^a	4,860	479,420	16,084	652	145,331	6,047	169.96	2,359.00
Montana.....	1,180	80,523	3,788	176	26,812	1,496	219.64	3,174.00
Nebraska.....	4,311	171,534	8,835	512	60,084	3,108	196.32	2,307.66
Nevada.....	164	22,654	71	35	6,557	329	136.67	3,246.54
New Hampshire.....	435	50,625	1,705	94	23,495	1,129	211.06	2,683.00
New Jersey.....	1,533	529,898	15,938	267	158,319	7,354	271.94	3,574.21
New Mexico ^a	730	118,508	(12)	151	25,327	(12)	155.00	3,000.00
New York.....	5,124	1,465,310	53,167	984	525,479	28,763	310.48	4,129.00 ^b
North Carolina.....	2,697	719,855	21,180	957	189,922	7,215	151.00	2,880.00 ^a
North Dakota.....	2,871	88,617	(9)	397	27,260	(9)	224.49	2,274.68
Ohio.....	3,029	837,028	26,008	1,196	410,177	18,816	205.39	3,129.95
Oklahoma.....	2,933	393,352	10,848	970	119,357	6,499	151.66	2,813.83 ^b
Oregon.....	1,100	205,526	8,018	223	66,690	3,544	276.40	3,364.00
Pennsylvania.....	7,483	948,789 ¹⁰	30,591	1,108	568,094	24,919	208.67 ^a	3,122.00
Rhode Island.....	303	63,844	2,181	62	33,276	1,797	218.96	3,100.00
South Carolina.....	2,074	380,771	12,139	465	122,319	5,005	126.23	1,941.00
South Dakota.....	3,505	90,881	5,326	272	29,324	1,912	231.87	2,273.00
Tennessee ^a	4,241	539,445	(15)	466	120,344	(15)	124.78	2,302.00
Texas.....	2,514	1,048,487	33,641	2,357	259,023	15,596	182.48	3,038.00
Utah.....	349	99,841	2,675	143	63,625	2,377	168.71	3,630.48
Vermont.....	762	47,094	1,886	80	16,057	756	203.31	2,410.00
Virginia.....	2,728	470,190	12,856	539	154,951	7,035	144.40	2,391.00
Washington.....	1,133	308,024	8,980	368	135,405	5,042	233.99	3,432.10
West Virginia.....	3,895	299,390	10,393	385	143,745	5,703	131.66	2,446.26 ^b
Wisconsin.....	5,439	355,509	14,484	649	148,380	6,866	206.18	3,053.00
Wyoming.....	607	47,146	1,750	100	17,157	893	314.88	2,820.00

¹ The combined figure for elementary and secondary schools is 3,258. ² In elementary schools; \$391.78 in secondary schools. ³ Estimated figure. ⁴ School year 1949-50. ⁵ Some of these buildings also include elementary grades. ⁶ 1891-52 figures. ⁷ Combined number of teachers is 23,450. ⁸ Includes principals, supervisors, executives. ⁹ Total number of teachers in elementary and secondary schools is 6,688. ¹⁰ 61,030 students in kindergarten, and 1,023 kindergarten teachers. ¹¹ In addition to separate elementary and high schools there are 427 combined schools. ¹² Total number of elementary and secondary teachers is 4,514. ¹³ Combined figure for elementary and secondary schools is 22,000.

State Compulsory Attendance Laws

State	Date of enactment*	Age limits	State	Date of enactment*	Age limits
Alabama	1915	7-16	Nebraska	1887	7-16
Arizona	1899	8-16	Nevada	1873	7-18
Arkansas	1909	7-16	New Hampshire	1871	8-16
California	1874	8-16	New Jersey	1875	7-16
Colorado	1889	8-16	New Mexico	1891	6-17
Connecticut	1872	7-16	New York	1874	7-16
Delaware	1907	7-16	North Carolina	1907	7-16
D. C.	1864	7-16	North Dakota	1883	7-17
Florida	1915	7-16	Ohio	1877	6-18
Georgia	1916	7-16	Oklahoma	1907	7-18
Idaho	1887	7-16	Oregon	1889	7-16
Illinois	1883	7-16	Pennsylvania	1895	8-17
Indiana	1897	7-16	Rhode Island	1883	7-16
Iowa	1902	7-16	South Carolina	1915	7-16
Kansas	1874	7-16	South Dakota	1883	7-16
Kentucky	1896	7-16	Tennessee	1905	7-16
Louisiana	1910	7-16	Texas	1915	7-16
Maine	1875	7-17	Utah	1890	8-18
Maryland	1902	7-16	Vermont	1867	7-16
Massachusetts	1852	7-16	Virginia	1908	7-16
Michigan	1871	6-16	Washington	1871	8-16
Minnesota	1885	8-16	West Virginia	1897	7-16
Mississippi	1918	7-18	Wisconsin	1879	7-16
Missouri	1905	7-16	Wyoming	1876	7-16
Montana	1883	8-16			

* Date of enactment of first compulsory education law.

Statistics of State School Systems, 1939 to 1950

Years	Enrollment					High-school graduates		Current expense per pupil in average daily attendance	Value of textbooks free to pupils
	Total	Elementary schools		Secondary schools		Boys	Girls		
		Boys	Girls	Boys	Girls				
1939-1940 . . .	25,433,542	9,681,465	9,150,633	3,257,952	3,350,492	538,273	604,973	\$ 88.09	\$25,614,116
1940-1941 . . .	25,296,138	9,529,587	9,052,638	3,273,606	3,440,307	536,715	615,508	92.38	26,076,002
1941-1942 . . .	24,562,473	9,336,067	8,838,601	3,089,434	3,298,371	535,156	626,043	98.31	27,012,724
1942-1943 . . .	24,155,146	9,237,002	8,796,078	2,891,633	3,230,433	489,115	597,383	104.85	27,090,248
1943-1944 . . .	23,266,616	9,081,270	8,631,826	2,553,356	3,000,164	393,418	559,836	116.99	23,987,277
1944-1945 . . .	23,225,784	9,053,952	8,611,642	2,565,699	2,994,491	384,673	559,863	125.41	23,954,676
1945-1946 . . .	23,299,941	9,098,013	8,579,731	2,633,117	2,989,080	418,725	555,682	136.41	27,447,595
1946-1947 . . .	23,659,158	9,187,105	8,634,376	2,822,633	3,015,044	505,218	568,461	152.80	29,805,963
1947-1948 . . .	23,944,532	9,429,268	8,861,959	2,747,061	2,906,244	507,649	565,529	179.43	37,553,364
1948-1949 . . .	24,476,658	9,707,391	9,110,863	2,759,298	2,899,106	499,984	557,960	197.65	43,481,000
1949-1950 . . .	25,111,000	10,018,000	9,387,000	2,812,000	2,895,000	505,304	558,050	208.83	48,076,000

Junior College Enrollment, 1919 to 1950

Source: U. S. Office of Education.

Year	Publicly controlled		Privately controlled		Total	
	Number	Enrollment	Number	Enrollment	Number	Enrollment
1919-20	10	2,940	42	5,162	52	8,102
1929-30	129	36,501	148	19,115	277	55,616
1937-38	209	82,041	244	39,469	453	121,510
1939-40	217	107,553	239	42,301	456	149,854
1941-42	231	100,783	230	40,489	461	141,272
1943-44	210	60,884	203	28,324	413	89,208
1945-46	242	109,640	222	46,816	464	156,456
1947-48	242	178,196	230	61,977	472	240,173
1949-50	256	187,695	227	55,045	483	242,740

Total School Enrollments, 1929-30 to 1949-50

Source: U. S. Office of Education.

Type of school by level	1929-30	1933-34	1939-40	1945-46	1947-48	1949-50
Kindergartens:						
Public.....	723,443	601,775	594,647	772,957	988,680	1,034,203
Private.....	54,456	37,506	57,341	57,341*	182,000	133,000
Elementary:						
Public.....	20,555,150	20,228,014	18,286,906	16,954,395	17,326,222	18,397,822
Private.....	2,255,430	2,333,191	2,106,030	2,213,362	2,278,703	2,583,127
Total kindergarten and elem'y schools.....	23,588,479	23,200,486	21,044,924	19,998,055	20,775,605	22,148,152
Secondary:						
Public high schools.....	4,399,422	5,669,156	6,601,444	5,622,197	5,653,305	5,706,734
Private high schools.....	341,158	360,092	457,768	565,108	602,484	672,362
Other†.....	59,287	61,501	54,070	40,044	39,595	88,162
Total secondary schools.....	4,799,867	6,090,749	7,113,282	6,227,349	6,295,384	6,417,258
Higher education:						
Publicly controlled.....	532,647	529,931	796,531	833,803	1,326,147	1,354,902
Privately controlled.....	568,090	525,429	697,672	843,048	1,290,115	1,304,119
Total higher education.....	1,100,737	1,055,360	1,494,203	1,676,851	2,616,262	2,659,021
Priv. comm. & bus. schools (day and eve.).....	179,756	102,286	634,546	563,970	493,330‡	493,330§

* Data are for 1939-40. † Secondary grades in colleges and teacher-training schools. ‡ Estimated. § Data for 1947-48.

Estimated Public and Private School Enrollment, 1952-53

Source: U. S. Office of Education.

Type of school	Enrollment	Type of school	Enrollment
Elementary schools*		Higher Education	
Public.....	22,671,000	Universities, colleges, professional schools, including junior colleges and normal schools....	2,150,000
Private and parochial.....	3,268,000		
Residential schools for exceptional children.....	60,000	Other schools	
Model and practice schools in teacher-training institutions.....	37,000	Private commercial.....	131,000
Federal schools for Indians.....	28,000	Nurse-training schools (not affiliated with colleges and universities).....	85,000
Total elementary.....	26,064,000	Total other schools.....	216,000
Secondary schools		Grand total.....	34,693,000
Public.....	5,525,000		
Private and parochial.....	684,000		
Residential schools for exceptional children.....	10,000		
Model and practice schools in teacher-training institutions and preparatory dept. of colleges..	39,000		
Federal schools for Indians.....	5,000		
Total secondary.....	6,263,000		

NOTE: These estimates include enrollments for the entire school or college year; they are not restricted to September enrollments alone.

* Including kindergarten.

Number Surviving Through College per 1,000 Pupils

Source: U. S. Office of Education.

Grade or year	1931-1932	1932-1933	1933-1934	1934-1935	1935-1936	1936-1937	1937-1938	1938-1939	1939-1940	1940-1941	1941-1942	1942-1943
Elementary: Fifth*	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Sixth.....	929	935	944	953	946	954	954	955	963	968	952	954
Seventh.....	884	889	895	892	889	895	901	908	916	910	905	909
Eighth.....	818	831	836	842	839	849	850	853	846	886	834	847
High School: I	780	786	792	803	814	839	811	796	781	781	789	807
II.....	651	664	688	711	725	704	679	655	673	697	698	713
III.....	546	570	594	610	587	554	519	532	552	566	581	604
IV.....	481	510	489	512	466	425	428	444	476	507	514	533
Graduates.....	432	455	462	467	439	393	398	419	450	481	488	505
Year of graduation.....	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
College: I	154	160	142	129	119	121	†	†	†	†	†	225
Graduates.....	69	47	49	51	†	†	.....	.....	.....	.....	.....	.....
Year of graduation.....	1943	1944	1945	1946	1947	1948	.....	.....	.....	.....	.....	.....

* Fourth grade in 11-grade system; fifth grade in 12-grade system. † Because of veteran students, it is not possible to calculate retention rates.

White and Negro School Statistics, 1949-50

(17 Southern States and District of Columbia)

State	Enrollment in public schools		No. pupils to a teacher		Average annual salary of teachers		Expenditure per pupil in A.D.A.*	
	White	Negro	White	Negro	White	Negro	White	Negro
Alabama.....	437,779	242,287	29	33	\$2,214	\$1,901	\$130.09	\$ 92.69
Arkansas.....	305,287	101,797	29	37	1,900	1,416	123.60	73.03
Delaware.....	37,835	8,220	23	28	.....	.....	.....	.....
D. C.....	50,573	45,750	25	30	3,963	3,863	289.68	220.74
Florida.....	333,454	116,382	24	27	3,056	2,643	196.42	136.71
Georgia.....	467,370	250,667	27	34	2,080	1,680	145.45	79.73
Kentucky.....	525,759	37,124	29	27	.....	.....	.....	.....
Louisiana.....	299,766	183,597	26	34	3,222	2,486	.....	.....
Maryland.....	261,417	73,601	28	30	3,600	3,575	198.76	217.41
Mississippi.....	263,643	263,797	28	40	1,884	760	122.93	32.55
Missouri.....	588,141	56,316	28	31	.....	.....	.....	.....
North Carolina.....	617,638	267,095	29	34	2,675	2,721	148.21	122.90
Oklahoma.....	403,570	37,693	24	24	.....	.....	.....	.....
South Carolina.....	272,305	221,880	27	32	2,150	1,515	154.83	79.82
Tennessee.....	552,858	106,927	29	32	.....	.....	.....	.....
Texas.....	1,152,914	201,253	26	27	3,154	2,934	.....	.....
Virginia.....	440,807	157,060	27	31	.....	.....	.....	.....
West Virginia.....	412,998	25,500	27	26	.....	.....	.....	.....
Total.....	7,424,114	2,396,946	27	32	.....	.....	.....	.....

* A.D.A. average daily attendance. Source, this page: U. S. Office of Education.

High-school and College Graduates, 1900 to 1950

(Public and private schools)

Year of graduation	HIGH SCHOOL			COLLEGE*		
	Men	Women	Total	Men	Women	Total
1900.....	38,075	56,808	94,883	22,173	5,237	27,410
1910.....	63,676	92,753	156,429	28,762	8,437	37,199
1920.....	123,684	187,582	311,266	31,980	16,462	48,422
1929-30.....	300,376	366,528	666,904	73,615	48,869	122,484
1940-41.....	578,718	642,757	1,221,475	106,859	79,065	185,924
1944-45.....	431,396	615,528	1,046,924	57,270	73,755	131,025
1945-46.....	466,926	613,107	1,080,033	58,664	77,510	136,174
1946-47.....	558,000	631,000	1,189,000	116,890	86,410	203,300
1947-48.....	562,863	627,046	1,189,909	175,456	95,563	271,019
1948-49.....	564,000	629,000	1,193,000	263,554	101,874	365,428
1949-50.....	570,700	629,000	1,199,700	328,841	103,217	432,058

* Bachelors and first professional degrees.

Public and Private Residential Schools for Exceptional Children

Type and year	States reporting*	Schools reporting	Pupils	Type and year	States reporting*	Schools reporting	Pupils
Blind:				Mentally deficient:			
1922.....	40	49	4,666	1936.....	47	130	21,889
1927.....	42	52	5,283	1940.....	47	105	21,883
1931.....	41	55	5,530	1947.....	47	140	21,562
1936.....	43	57	5,921				
1940.....	42	52	5,947	Epileptic:			
1947.....	43	56	5,235	1940.....	†	†	1,117
				1947.....	10	10	1,096
Deaf:				Delinquent:			
1922.....	44	76	11,454	1936.....	50	155	31,418
1927.....	45	77	13,966	1940.....	51	144	29,384
1931.....	46	84	14,890	1947.....	51	167	22,745
1936.....	47	81	15,505				
1940.....	47	81	14,815				
1947.....	47	81	13,123				

* Includes D. C., Territory of Hawaii and Puerto Rico. † Data not available. NOTE: Total number of children (all types), 1946-47: Continental U. S., 63,137; outlying parts of the U. S., 624.

School Enrollment, 1950 and 1951

Source: Department of Commerce, Bureau of the Census.

Year and age	Male			Female			Total		
	Population*	Enrollment		Population*	Enrollment		Population*	Enrollemnt	
		Number	%		Number	%		Number	%
OCTOBER, 1950									
5 years old.....	1,438,000	281,000	19.5	1,378,000	304,000	22.1	2,816,000	585,000	20.8
6 years old.....	1,463,000	1,368,000	93.5	1,402,000	1,351,000	96.4	2,865,000	2,719,000	94.9
7 to 9 years old.....	4,237,000	4,186,000	98.8	4,064,000	4,024,000	99.0	8,301,000	8,210,000	98.9
10 to 13 years old.....	4,649,000	4,587,000	98.7	4,497,000	4,425,000	98.4	9,146,000	9,012,000	98.5
14 and 15 years old.....	2,189,000	2,084,000	95.2	2,124,000	2,003,000	94.3	4,313,000	4,087,000	94.8
16 and 17 years old.....	2,039,000	1,484,000	72.8	2,031,000	1,417,000	69.8	4,070,000	2,901,000	71.3
18 and 19 years old.....	1,904,000	680,000	35.7	2,132,000	519,000	24.3	4,036,000	1,199,000	29.7
20 to 24 years old.....	5,141,000	733,000	14.3	5,787,000	268,000	4.6	10,928,000	1,001,000	9.2
25 to 29 years old.....	5,643,000	333,000	5.9	6,185,000	27,000	0.4	11,828,000	360,000	3.0
Total.....	28,703,000	15,736,000	54.8	29,600,000	14,337,000	48.4	58,303,000	30,073,000	51.6
OCTOBER, 1951									
5 years old.....	1,554,000	304,000	19.6	1,490,000	270,000	18.1	3,044,000	574,000	18.9
6 years old.....	1,438,000	1,344,000	93.5	1,378,000	1,278,000	92.7	2,816,000	2,622,000	93.1
7 to 9 years old.....	4,414,000	4,374,000	99.1	4,230,000	4,182,000	98.9	8,644,000	8,556,000	99.0
10 to 13 years old.....	4,816,000	4,774,000	99.1	4,648,000	4,616,000	99.3	9,464,000	9,390,000	99.2
14 and 15 years old.....	2,216,000	2,108,000	95.1	2,158,000	2,040,000	94.5	4,374,000	4,148,000	94.8
16 and 17 years old.....	2,026,000	1,506,000	74.3	2,072,000	1,562,000	75.4	4,098,000	3,068,000	74.9
18 and 19 years old.....	1,648,000	534,000	32.4	2,066,000	440,000	21.3	3,714,000	974,000	26.2
20 to 24 years old.....	4,200,000	602,000	14.3	5,684,000	244,000	4.3	9,884,000	846,000	8.6
25 to 29 years old.....	5,440,000	228,000	4.2	6,172,000	60,000	1.0	11,612,000	288,000	2.5
Total.....	27,752,000	15,774,000	56.8	29,898,000	14,692,000	49.1	57,650,000	30,466,000	52.8

* Civilian population, excluding relatively small number in institutions.

Degrees Granted by Institutions of Higher Education, 1950-51

Source: U. S. Office of Education.

Major field of study	Bachelor's and first professional		Master's and second professional		Doctor's	
	Men	Women	Men	Women	Men	Women
Agriculture.....	8,924	118	1,150	28	327	3
Architecture.....	2,556	88	189	14	2	...
Biology.....	6,725	2,072	477	127	120	20
Business and commerce.....	52,320	5,917	4,045	310	61	4
Chemistry.....	7,036	1,222	1,300	162	994	52
Dentistry, D.D.S. only.....	2,768	35	...	...	...	...
Economics.....	9,579	905	738	71	219	17
Education.....	18,898	32,633	13,055	9,154	783	150
Engineering.....	41,386	87	4,815	10	519	1
English.....	6,829	8,676	1,313	931	230	51
Fine arts.....	2,487	3,119	454	256	15	7
History.....	9,000	3,321	1,308	385	295	30
Home economics.....	55	7,848	19	663	2	18
Journalism.....	2,684	1,019	310	51	3	...
Language, modern.....	1,597	2,671	488	446	116	27
Law.....	13,926	412	483	14	46	...
Mathematics.....	4,311	1,442	929	180	175	9
Medicine, M.D. only.....	5,563	451	...	...	...	...
Music.....	3,740	3,983	1,172	558	42	6
Pharmacy.....	4,622	411	121	16	28	1
Philosophy.....	2,333	321	317	47	74	10
Physical education.....	7,654	2,459	1,277	354	75	20
Physics.....	2,671	117	934	39	435	8
Political science.....	4,698	884	567	90	143	9
Psychology.....	4,836	2,983	1,250	395	368	57
Social science*.....	4,722	2,339	370	185	53	7
Sociology.....	3,395	3,925	422	162	111	18
Speech and dramatic arts.....	2,254	2,030	520	308	79	15
Theology.....	3,329	135	575	71	157	1
Total.....	279,343	105,009	46,231	18,901	6,664	674

* Not elsewhere classified. † Includes studies not listed.

Federal Government Allotment for School Lunch Program

Source: U. S. Department of Agriculture.

State	1951	1952	State	1951	1952
Alabama.....	\$2,513,816	\$2,547,922	New Jersey.....	\$ 1,490,545	\$ 1,346,512
Arizona.....	420,599	394,893	New Mexico.....	394,224	431,728
Arkansas.....	1,701,055	1,579,484	New York.....	3,799,985	3,858,774
California.....	3,197,370	2,908,374	North Carolina.....	3,100,647	2,966,406
Colorado.....	514,800	526,193	North Dakota.....	282,202	305,993
Connecticut.....	607,019	529,908	Ohio.....	2,803,740	2,505,441
Delaware.....	84,813	79,537	Oklahoma.....	1,508,514	1,296,643
District of Columbia.....	187,511	158,897	Oregon.....	665,316	526,938
Florida.....	1,250,731	1,232,052	Pennsylvania.....	3,134,712	3,597,044
Georgia.....	2,445,825	2,363,855	Rhode Island.....	242,196	240,495
Idaho.....	311,121	295,925	South Carolina.....	1,855,374	1,876,422
Illinois.....	2,394,660	2,420,704	South Dakota.....	210,785	265,195
Indiana.....	1,638,864	1,471,749	Tennessee.....	2,345,252	2,287,726
Iowa.....	971,080	1,017,508	Texas.....	3,905,698	3,495,215
Kansas.....	824,855	768,537	Utah.....	396,710	366,001
Kentucky.....	2,224,937	2,144,069	Vermont.....	186,853	181,511
Louisiana.....	1,824,767	1,666,075	Virginia.....	1,698,641	1,764,262
Maine.....	428,277	431,343	Washington.....	924,404	748,500
Maryland.....	709,191	770,130	West Virginia.....	1,280,246	1,299,019
Massachusetts.....	1,550,121	1,426,507	Wisconsin.....	1,354,429	1,315,518
Michigan.....	2,334,144	2,205,589	Wyoming.....	118,688	113,572
Minnesota.....	1,262,408	1,241,743	Continental U. S.....	65,770,000	63,618,975
Mississippi.....	2,115,064	2,248,813	Alaska.....	10,551	13,419
Missouri.....	1,606,215	1,442,717	Hawaii.....	73,320	96,139
Montana.....	186,817	211,866	Puerto Rico.....	2,377,490	2,353,944
Nebraska.....	483,481	487,823	Virgin Islands.....	43,639	37,523
Nevada.....	48,476	43,528			
New Hampshire.....	232,822	214,321	TOTAL.....	\$68,275,000	\$66,120,000

Federal Government Funds for Education, Fiscal Year 1949-50

Source: U. S. Office of Education.

Administering agency and purpose	Amount	Administering agency and purpose	Amount
Federal Security Agency.....	\$ 188,308,698	Department of the Interior.....	\$ 32,436,627
Office of Education.....	157,821,398	Education for Indians in U. S.....	19,362,756
Other.....	30,487,300	Education of natives in Alaska.....	1,929,940
Department of Agriculture.....	163,579,836	Education in the Virgin Islands.....	11,826
School lunch program.....	112,599,713	Other.....	11,132,105
Other.....	50,980,123	Department of the Treasury.....	2,046,247
Veterans Administration.....	2,868,020,239	Coast Guard Academies.....	2,014,047
Vocational rehabilitation.....	272,291,866	Other.....	32,200
Education and training.....	2,595,728,373	District of Columbia.....	1,982,045
Dept. of Commerce: Maritime Commission.....	6,755,004	Canal Zone: Public education.....	1,631,040
Federal merchant marine.....	3,288,518	General Services Administration (Veterans' Educational Facilities Program).....	827,071
Other.....	3,466,486	TOTAL.....	\$3,281,746,417
Department of Defense.....	16,159,610		
U. S. Military Academy.....	5,041,808		
U. S. Naval Academy.....	5,492,200		
Other.....	5,625,602		

Vocational- and Special-School Enrollment, 1950*

Source: U. S. Office of Education.

Type of class	Agriculture	Distributive occupations	Home economics	Trades & industry	Total
Evening.....	345,007	239,554	666,676	266,647	1,517,884
Part-time.....	42,504	125,158	115,370	315,421	598,453
All-day.....	376,897	.....	647,711	222,739	1,247,347
Total.....	764,408	364,712	1,429,757	804,807	3,363,684

* Provisional figures.

Academic Degree Abbreviations

Source: American Council on Education.

Ae.E.	Aeronautical Engineer	G.L.	Graduate in Law
B.A.	Bachelor of Arts	G.N.	Graduate Nurse
B.Ag.	Bachelor of Agriculture	G.Ph.	Graduate in Pharmacy
B.App.Arts	Bachelor of Applied Arts	HH.D.	Doctor of Humanities
B.Arch.	Bachelor of Architecture	L.H.D.	Doctor of Humane Letters
B.B.A.	Bachelor of Business Administration	Litt.M.	Master of Letters
B.B.S.	Bachelor of Business Science	LL.B.	Bachelor of Laws
B.C.E.	Bachelor of Civil Engineering	LL.D.	Doctor of Laws
B.Ch.E.	Bachelor of Chemical Engineering	LL.M.	Master of Laws
B.D.	Bachelor of Divinity	M.A.	Master of Arts
B.Dr.Art	Bachelor of Dramatic Art	M.Aero.E.	Master of Aeronautical Engineering
B.Ed.	Bachelor of Education	M.C.E.	Master of Civil Engineering
B.E.E.	Bachelor of Electrical Engineering	M.C.S.	Master of Commercial Science
B.F.A.	Bachelor of Fine Arts	M.D.	Doctor of Medicine
B.J.	Bachelor of Journalism	M.E.	Mechanical Engineer
B.L.	Bachelor of Letters	M.Ed.	Master of Education
B.Litt.	Bachelor of Literature	Med.Sc.D.	Doctor of Medical Science
B.Med.	Bachelor of Medicine	M.Eng.	Mining Engineer
B.Mus.	Bachelor of Music or in Music	M.F.	Master of Forestry
B.N.	Bachelor of Nursing	M.F.A.	Master of Fine Arts
B.Pharm.	Bachelor of Pharmacy	M.Int.Med.	Master of Internal Medicine
B.Ph.	Bachelor of Philosophy	M.M.	Master of Music
B.S.	Bachelor of Science	M.Mech.Eng.	Master of Mechanical Engineering
B.Th.	Bachelor of Theology	M.Mus.	Master of Music
C.E.	Civil Engineer	M.N.	Master of Nursing
Ch.E.	Chemical Engineer	M.P.H.	Master of Public Health
D.C.E.	Doctor of Civil Engineering	M.R.E.	Master of Religious Education
D.C.L.	Doctor of Civil Law	M.R.P.	Master in Regional Planning
D.C.S.	Doctor of Commercial Science	M.S.	Master of Science
D.D.	Doctor of Divinity	M.Soc.Wk.	Master of Social Work
D.D.S.	Doctor of Dental Surgery	M.Surgery	Master in Surgery
D.Ed.	Doctor of Education	M.Th.	Master of Theology
D.M.L.	Doctor of Modern Languages	O.D.	Doctor of Optometry
D.M.S.	Doctor of Medical Science	Phar.D.	Doctor of Pharmacy
D.P.H.	Doctor of Public Health	Ph.B.	Bachelor of Philosophy
D.R.E.	Doctor of Religious Education	Ph.C.	Pharmaceutical Chemist
D.Sc.	Doctor of Science	Ph.D.	Doctor of Philosophy
D.V.M.	Doctor of Veterinary Medicine	Ph.G.	Graduate in Pharmacy
E.E.	Electrical Engineer	Ph.L.	Licentiate in Philosophy
E.M.	Engineer of Mines	Ph.M.	Master of Philosophy
E.Met.	Engineer of Metallurgy	S.Sc.D.	Doctor of Social Science
		S.T.B.	Bachelor of Sacred Theology
		S.T.D.	Doctor of Sacred Theology
		S.T.M.	Master of Sacred Theology

Colors of Academic Degrees

Agriculture	Maize	Library Science	Lemon
Arts and Letters	White	Medicine	Green
Commerce & Accountancy	Drab	Music	Pink
Dentistry	Lilac	Oratory	Silver gray
Economics	Copper	Pharmacy	Olive green
Education	Light blue	Philosophy	Dark blue
Engineering	Orange	Physical Education	Sage green
Fine Arts, Architecture	Brown	Public Health	Salmon pink
Forestry	Russet	Science	Golden yellow
Humanities	Crimson	Theology	Scarlet
Law	Purple	Veterinary Science	Gray

Accredited U. S. Colleges and Universities

Spring Semester, 1952

Only schools accredited by at least one of the six regional accrediting associations are listed. The number of students includes only those on full-time status.

M—Male; F—Female; C—Coeducational; Co—Coordinate

* denotes that data apply for Fall semester, 1950. † denotes that women are admitted for special courses and graduate work when applied to a male school and that men are admitted when applied to a female school.

Institution, location and (date founded)	Chief executive	No. of students	Control
Adams State College; Alamosa, Colo. (1925)	F. J. Plachy	315 C	State
Adelphi College; Garden City, N. Y. (1896)	P. D. Eddy	2,100 C	Priv.
Agnes Scott College; Decatur, Ga. (1889)	W. McP. Alston	471 F	Priv.
Akron, Univ. of; Ohio (1870)	N. P. Auburn	1,817 C	City
Alabama, Univ. of; University (1831)	J. M. Gallalee	5,397 C	State
Alabama A & M College; Normal (1875)	J. F. Drake	1,030 C	State
Alabama College; Montevallo (1896)	F. E. Lund	686 F	State
Alabama Polytechnic Institute; Auburn (1872)	R. B. Draughon	4,983 C	State
Alabama St. Teach. Coll.; Florence (1873)	E. B. Norton	921 C	State
Alabama St. Teach. Coll.; Jacksonville (1883)*	Houston Cole	1,259 C	State
Alabama St. Teach. Coll.; Livingston (1835)	W. W. Hill	356 C	State
Alabama St. Teach. Coll.; Montgomery (1874)*	H. C. Trenholm	2,603 C	State
Alabama St. Teach. Coll.; Troy (1887)	C. B. Smith	593 C	State
Albertus Magnus College; New Haven, Conn. (1925)	Sister M. Coralita	37 F	Cath.
Albion College; Albion, Mich. (1835)	W. W. Whitehouse	978 C	Meth.
Albright Coll.; Reading, Penna. (1856)	H. V. Masters	517 C	Ev. U. B.
Alcorn A & M College; Alcorn, Miss. (1871)	J. R. Otis	523 C	State
Alfred University; Alfred, N. Y. (1836)	M. E. Drake	868 C	State
Allegheny Coll.; Meadville, Penna. (1815)	L. T. Benazet	941 C	Meth.
Allen Univ.; Columbia, S. C. (1870)	S. R. Higgins	752 C	A. M. E.
Alma College; Alma, Mich. (1886)	J. S. Harker	419 C	Presb.
Alverno Coll.; Milwaukee, Wis. (1887)	Sister M. Augustine	358 F	Cath.
American Internat'l Coll.; Springfield, Mass. (1885)	Spencer Miller, Jr.	781 C	Priv.
American University; Washington, D. C. (1893)	Hurst R. Anderson	4,681 C	Priv.
Amherst Coll.; Amherst, Mass. (1821)	C. W. Cole	1,035 M	Priv.
Anderson Coll.; Anderson, Ind. (1917)	J. A. Morrison	844 C	Ch. God
Antioch Coll.; Yellow Springs, Ohio (1852)	Douglas McGregor	980 C	Priv.
Appalachian St. Teach. Coll.; Boone, N. C. (1903)	B. B. Dougherty	847 C	State
Aquinas College; Grand Rapids, Mich. (1923)	V. Rev. A. F. Bukowski	396 C	Cath.
Arizona, Univ. of; Tucson (1885)	R. A. Harvill	4,745 C	State
Arizona St. Coll.; Flagstaff (1899)	L. A. Eastburn	467 C	State
Arizona St. College; Tempe (1885)	Grady Gammage	3,989 C	State
Arkansas, Univ. of; Fayetteville (1871)	J. T. Caldwell	5,110 C	State
Arkansas A & M Coll.; College Heights (1909)	H. E. Thompson	503 C	State
Arkansas A & M & Normal Coll.; Pine Bluff (1873)	L. A. Davis	885 C	State
Arkansas Polytechnic Coll.; Russellville (1909)	J. W. Hull	810 C	State
Arkansas State Coll.; State College (1909)	C. R. Reng	1,086 C	State
Arkansas St. Teach. Coll.; Conway (1907)	N. M. Irby	977 C	State
Asbury College; Wilmore, Ky. (1890)	Z. T. Johnson	784 C	Priv.
Ashland Coll.; Ashland, Ohio (1878)*	G. L. Clayton	424 C	Breth.
Assumption College; Worcester, Mass. (1904)	V. Rev. Armand H. Desautels	150 M	Cath.
Atlanta Univ.; Ga. (1865)*	R. E. Clement	497 C	Priv.
Atlantic Union College; South Lancaster, Mass. (1882)	L. N. Holm	358 C	Advent.
Augustana College; Rock Island, Ill. (1860)	C. Bergendoff	863 C	Luth.
Augustana College; Sioux Falls, S. Dak. (1860)	L. M. Stavig	513 C	Luth.
Aurora College; Aurora, Ill. (1893)	T. P. Stephens	245 C	Priv.
Austin College; Sherman, Texas (1849)	W. B. Guerrant	633 C	Presb.
Austin Peay State College; Clarksville, Tenn. (1927)	Halbert Harvill	730 C	State
Babson Inst. of Bus. Admin.; Babson Park, Mass. (1919)	E. B. Hinckley	363 M	Priv.
Baker Univ.; Baldwin, Kansas (1858)	N. P. Horn	448 C	Meth.
Baldwin-Wallace Coll.; Berea, Ohio (1845)	J. L. Knight	1,483 C	Meth.
Ball State Teachers Coll.; Muncie, Ind. (1918)	J. R. Emens	2,631 C	State
Barat College of the Sacred Heart; Lake Forest, Ill. (1900)	Mother Margaret Reilly	339 F	Cath.
Barber-Scotia Coll.; Concord, N. C. (1867)	L. S. Cozart	181 F	Presb.
Bard College; Annandale-on-Hudson, N. Y. (1860)	J. H. Case, Jr.	251 C	Priv.
Barry Coll.; Miami Shores, Fla. (1940)	Mother M. Gerald	204 F	Cath.
Bates College; Lewiston, Me. (1864)	C. F. Phillips	809 C	Priv.
Baylor Univ.; Waco, Texas (1845)	W. R. White	3,961 C	Bapt.
Beaver Coll.; Jenkintown, Penna. (1853)	Raymon Kistler	505 F	Presb.

Institution, location and (date founded)	Chief executive	No. of students	Control
Belhaven Coll.; Jackson, Miss. (1894)	G. T. Gillespie	172 F	Presb.
Beloit College; Beloit, Wis. (1846)	Carey Croneis	964 C	Priv.
Benedict Coll.; Columbia, S. C. (1870)*	J. A. Bacoats	658 C	Bapt.
Bennett College, Greensboro, N. C. (1873)	D. D. Jones	432 F	Meth.
Bennington College, Bennington, Vt. (1932)	F. H. Burkhardt	309 C	Priv.
Berea College; Berea, Ky. (1855)	Francis S. Hutchins	1,020 C	Priv.
Bessie Tift Coll.; Forsyth, Ga. (1849)	C. T. Vinzant	181 F	Bapt.
Bethany College; Bethany, W. Va. (1840)	B. R. Weimer	499 C	Priv.
Bethany Coll.; Lindsborg, Kans. (1881)	Emory Lindquist	226 C	Priv.
Bethel Coll.; North Newton, Kans. (1887)	E. G. Kaufman	500 C	Mennon.
Bethune Cookman Coll.; Daytona Beach, Fla. (1904)	R. V. Moore	552 C	Meth.
Birmingham-Southern Coll.; Birmingham, Ala. (1856)	G. R. Stuart	603 C	Meth.
Bishop College; Marshall, Texas (1881)	Milton K. Curry, Jr.	550 C	Bapt.
Black Hills Teach. Coll.; Spearfish, S. Dak. (1883)	R. E. Jonas	325 C	State
Blackburn Coll.; Carlinville, Ill. (1857)	R. P. Ludlum	325 C	Presb.
Blue Mountain Coll.; Blue Mountain, Miss. (1873)	L. T. Lowrey	244 F	Bapt.
Bluefield St. Coll.; Bluefield, W. Va. (1895)	H. L. Dickason	858 C	State
Boston, Teachers Coll. of the City of; Mass. (1852)	W. F. Looney	633 C	City
Boston Coll.; Chestnut Hill, Mass. (1863)	V. Rev. J. R. N. Maxwell	4,079 C	Cath.
Boston Univ.; Mass. (1839)	H. C. Case	8,414 C	Priv.
Bowdoin Coll.; Brunswick, Me. (1794)	J. S. Coles	811 M	Priv.
Bowling Green St. Univ.; Bowling Green, Ohio (1910)	R. W. McDonald	1,427 C	State
Bradley University; Peoria, Ill. (1897)	D. B. Owen	2,466 C	Priv.
Brandeis University; Waltham, Mass. (1948)	Abram L. Sachar	601 C	Priv.
Brenau Coll.; Gainesville, Ga. (1878)	Josiah Crudup	257 F	Priv.
Briar Cliff Coll.; Sioux City, Iowa (1930)	Sister J. Marie	385 F	Cath.
Bridgewater Coll.; Bridgewater, Va. (1880)	W. D. Bowman	385 C	Breth.
Brigham Young Univ.; Provo, Utah (1875)	E. L. Wilkinson	4,865 C	Mormon
Brooklyn, Polytechnic Inst. of; N. Y. (1854)	H. S. Rogers	1,621 M	City
Brooklyn Coll.; New York (1930)	H. D. Glidense	9,049 C	City
Brown Univ.; Providence, R. I. (1764)	H. M. Wriston	3,086 Co ^a	Priv.
Bryn Mawr Coll.; Bryn Mawr, Penna. (1880)	Katherine E. McBride	751 Co	Priv.
Bucknell Univ.; Lewisburg, Penna. (1846)	Horace Hildreth	1,850 C	Bapt.
Buffalo, Univ. of; New York (1846)	T. R. McConnell	3,764 C	Priv.
Butler Univ.; Indianapolis, Ind. (1855)	M. O. Ross	4,725 C	Priv.
California, Univ. of; Berkeley (1868)*	R. G. Sproul	32,825 C	State
California Inst. of Tech.; Pasadena (1891)	L. A. DuBridge	975 M	Priv.
California St. Poly. Coll.; San Luis Obispo (1901)	J. A. McPhee	1,992 M	State
Calvin College; Grand Rapids, Mich. (1876)	W. Spoelhof	1,119 C	Ch. Ref.
Canisius Coll.; Buffalo, N. Y. (1870)	V. Rev. R. Schouten	2,530 M	Cath.
Capital Univ.; Columbus, Ohio (1850)	H. L. Yochum	1,038 C	Luth.
Carleton Coll.; Northfield, Minn. (1866)	L. M. Gould	883 C	Priv.
Carnegie Inst. of Tech.; Pittsburgh, Penna. (1900)	J. C. Warner	2,870 C	Priv.
Carroll College; Helena, Mont. (1910)	V. Rev. R. V. Kavanagh	432 C	Cath.
Carroll College; Waukesha, Wisc. (1846)	Robert D. Steele	436 C	Presb.
Carson-Newman Coll.; Jefferson City, Tenn. (1851)	Harley Fite	805 C	Bapt.
Carthage Coll.; Carthage, Ill. (1870)	H. H. Lentz	393 C	Luth.
Cascade Coll.; Portland, Ore. (1918)	C. J. Pike	190 C	Priv.
Case Inst. of Tech.; Cleveland, Ohio (1880)	Elmer Hutchisson (acting)	1,261 M	Priv.
Catawba Coll.; Salisbury, N. C. (1851)	A. R. Keppel	520 C	Ev. Ref.
Catholic Univ. of Amer.; Washington, D. C. (1887)	Most Rev. P. J. McCormick	2,430 C	Cath.
Cedar Crest Coll.; Allentown, Pa. (1867)	D. H. Moore	360 F	Ev. Ref.
Centenary Coll. of Louisiana, Shreveport (1825)	J. J. Mickle	638 C	Meth.
Central Coll.; Fayette, Mo. (1854)	R. L. Woodward	552 C	Meth.
Central College; Pella, Iowa (1853)	G. T. Vander Lugt	342 C	Ref.
Central Mich. Coll. of Ed.; Mt. Pleasant (1892)	C. L. Ansbach	1,625 C	State
Central Missouri St. Coll.; Warrensburg (1871)	G. W. Diemer	1,372 C	State
Central State Coll.; Edmond, Okla. (1890)	W. M. Chambers	727 C	State
Central State Coll.; Wilberforce, Ohio (1887)	C. H. Wesley	781 C	State
Central Washington Coll. of Ed.; Ellensburg (1891)	R. E. McConnell	1,033 C	State
Centre Coll. of Kentucky; Danville (1819)	Walter A. Groves	351 Co	Presb.
Champlain Coll., St. Univ.; Plattsburgh, N. Y. (1946)	F. A. Morse	862 C	State
Charleston, College of; S. C. (1770)	G. D. Grice	166 C	Priv.
Chattanooga, Univ. of; Chattanooga, Tenn. (1886)	D. A. Lockmiller	825 C	Priv.
Chestnut Hill Coll.; Phila., Pa. (1871)	Sister M. Kostka	417 F	Cath.
Chicago, School of the Art Inst. of; Ill. (1869)	H. Ropp	812 C	Priv.
Chicago, Univ. of; Illinois (1890)	L. A. Kimpton	5,323 C	Priv.
Chicago Musical Coll.; Ill. (1867)	Rudolph Ganz	290 C	Priv.
Chicago Teachers Coll.; Ill. (1869)	R. M. Cook	1,012 C	City
Chico State Coll.; Chico, Calif. (1887)	Glenn Kendall	1,093 C	State

Institution, location and (date founded)	Chief executive	No. of students	Control
Cincinnati, Univ. of; Ohio (1819)	Raymond Walters	5,909 C	City
Citadel, The; The Military Coll. of S. C.; Charleston (1842)	Gen. C. P. Summerall	1,275 M	State
Clafin Univ.; Orangeburg, S. C. (1869)	J. J. Seabrook	353 C	Meth.
Claremont Coll.; Claremont, Calif. (1925) ⁴	E. W. Lyon	120 C	Priv.
Claremont Men's Coll.; Claremont, Calif. (1947)	G. C. S. Benson	264 M	Priv.
Clark Coll.; Atlanta, Ga. (1869)	James P. Brawley	651 C	Meth.
Clark Univ.; Worcester, Mass. (1887)	H. B. Jefferson	358 C	Priv.
Clarke Coll.; Dubuque, Iowa (1843)	Sister M. A. Leone	464 F	Cath.
Clarkson Coll. of Tech.; Potsdam, N. Y. (1896)	William G. Van Note	1,019 M	Priv.
Clemson Agric. Coll.; Clemson, S. C. (1889)	R. F. Poole	2,461 M	State
Coe Coll.; Cedar Rapids, Iowa (1851)	H. H. Brooks	538 C	Presb.
Coker Coll.; Hartsville, S. C. (1908)	D. C. Agnew	275 F†	Priv.
Colby Coll.; Waterville, Me. (1813)	J. S. Bixler	1,007 C	Priv.
Colgate Univ.; Hamilton, N. Y. (1819)	E. N. Case	1,239 M	Priv.
Colorado, Univ. of; Boulder, Colo. (1876)	Robert L. Stearns	7,115 C	State
Colorado A & M Coll.; Fort Collins (1870)	W. E. Morgan	3,009 C	State
Colorado Coll.; Colorado Springs (1874)	W. H. Gill	766 C	Priv.
Colorado School of Mines, Golden (1874)	J. W. Vanderwilt	835 M	State
Colorado State Coll. of Ed.; Greeley (1890)	W. R. Ross	1,497 C	State
Columbia Coll.; Columbia, S. C. (1854)	R. W. Spears	187 F	Meth.
Columbia Univ., N. Y. C. (1754) ⁴	D. D. Eisenhower	20,497 C	Priv.
Concord College; Athens, W. Va. (1872)	V. H. Stewart	574 C	State
Concordia College; Moorhead, Minn. (1891)	J. L. Knutson	851 C	Luth.
Concordia Teach. Coll.; River Forest, Ill. (1864)	Arthur Klinck	541 C	Luth.
Connecticut, Univ. of; Storrs (1881)	A. N. Jorgensen	7,143 C	State
Connecticut Coll. for Women; New London (1911)	Rosemary Park	843 F	Priv.
Connecticut St. Teach. Coll.; Danbury (1904)	Ruth A. Haas	348 C	State
Connecticut St. Teach. Coll.; New Britain (1849)	H. D. Welte	976 C	State
Connecticut St. Teach. Coll.; New Haven (1893)	S. M. Brownell	902 C	State
Connecticut St. Teach. Coll.; Whitlantic (1889)	J. E. Smith	221 C	State
Converse College; Spartanburg, S. C. (1889)	E. M. Gwathmey	308 F	Priv.
Cooper Union; N. Y. C. (1859)	E. S. Burdell	1,300 C	Priv.
Cornell Coll.; Mount Vernon, Iowa (1853)	R. D. Cole	599 C	Meth.
Cornell Univ.; Ithaca, N. Y. (1865)	D. W. Malott	9,534 C	Priv.-St.
Creighton Univ.; Omaha, Nebr. (1878)	V. Rev. C. M. Reinert	2,285 C	Cath.
Culver-Stockton Coll.; Canton, Mo. (1853)	L. E. Ziegler	350 C	Priv.
Dakota Wesleyan Univ.; Mitchell, S. Dak. (1885)	M. D. Smith	168 C	Meth.
Dartmouth College; Hanover, N. H. (1769)	J. S. Dickey	2,753 M	Priv.
Davidson Coll.; Davidson, N. C. (1837)	J. R. Cunningham	770 M	Presb.
Davis & Elkins Coll.; Elkins, W. Va. (1903)	R. B. Purdum	538 C	Presb.
Dayton, Univ. of; Dayton, Ohio (1850)	Rev. George J. Renneker	1,747 C	Cath.
Delaware, Univ. of; Newark (1833)	J. A. Perkins	2,210 C	State
Delta State Teachers Coll.; Cleveland, Miss. (1924)	W. M. Kethley	365 C	State
Denison Univ.; Granville, Ohio (1831)	A. B. Knapp	1,074 C	Priv.
Denver, Univ. of; Colo. (1864)	A. C. Jacobs	3,914 C	Priv.
De Paul Univ.; Chicago, Ill. (1898)	V. Rev. C. J. O'Malley	2,261 C	Cath.
DePauw Univ.; Greencastle, Ind. (1837)	R. J. Humbert	1,647 C	Meth.
Detroit, Univ. of; Mich. (1877)	V. Rev. C. J. Steiner	4,985 C	Cath.
Dickinson Coll.; Carlisle, Penna. (1773)	W. W. Edell	814 C	Meth.
Dillard Univ.; New Orleans, La. (1930)	A. W. Dent	618 C	Priv.
Doane Coll.; Crete, Nebr. (1872)	D. L. Crawford	292 C	Priv.
Drake Univ.; Des Moines, Iowa (1881)	H. G. Harmon	2,376 C	Priv.
Drew Univ.; Madison, N. J. (1867)	F. G. Holloway	636 C	Meth.
Drexel Inst. of Tech.; Philadelphia, Penna. (1891)	James Creese	2,627 C	Priv.
Drury College; Springfield, Mo. (1873)	J. F. Findlay	700 C	Priv.
Dubuque, Univ. of; Iowa (1852)	Rollo LaPorte	502 C	Presb.
Duchesne Coll.; Omaha, Neb. (1881)	Mother M. Downey	246 F	Cath.
Duke Univ.; Durham, N. C. (1838)	A. H. Edens	4,380 C	Meth.
Dunbarton Coll. of Holy Cross; Washington, D. C. (1935)	Sister M. M. Dolores	180 F	Cath.
Duquesne Univ.; Pittsburgh, Penna. (1878)	V. Rev. V. F. Gallagher	4,000 C	Cath.
D'Youville Coll.; Buffalo, N. Y. (1908)	Sister Margaret	458 F	Cath.
Earlham College; Richmond, Ind. (1847)	T. E. Jones	595 C	Friends
East Carolina College; Greenville, N. C. (1907)	J. D. Messick	1,644 C	State
East Central St. Coll.; Ada, Okla. (1909)	C. F. Spencer	847 C	State
East Tennessee State Coll.; Johnson City (1909)	B. E. Dossett	2,057 C	State
East Texas St. Teach. Coll.; Commerce (1889)	J. G. Gee	1,841 C	State
Eastern Illinois St. Coll.; Charleston (1895)	R. G. Buzzard	1,368 C	State
Eastern Kentucky St. Coll.; Richmond (1806)	W. F. O'Donnell	1,520 C	State
Eastern Montana Coll. of Ed.; Billings (1926)	A. G. Peterson	375 C	State

Institution, location and (date founded)

Chief executive

No. of students

Control

Eastern Nazarene Coll.; Quincy, Mass. (1918).....	E. S. Mann.....	463 C	Naz.
Eastern New Mexico Univ.; Portales (1934).....	F. D. Golden.....	590 C	State
Eastern Oregon Coll. of Ed.; La Grande (1929).....	R. G. Langston.....	234 C	State
Eastern Washington Coll. of Ed.; Cheney (1890).....	O. W. Freeman.....	351 C	State
Elizabethtown Coll.; Elizabethtown, Penna. (1899).....	A. C. Baugher.....	237 C	Breth.
Elmhurst Coll.; Elmhurst, Ill. (1871).....	H. W. Dinkmeyer.....	617 C	Ev. & Ref.
Elmira College; Elmira, N. Y. (1855).....	Lewis Eldred.....	81 C	Priv.
Elon College; Elon College, N. C. (1889).....	Leon Edgar Smith.....	540 C	Cong.
Emerson College; Boston, Mass. (1880).....	J. W. French, Jr.....	254 C	Priv.
Emmanuel Coll.; Boston, Mass. (1919).....	Sister M. Patricia.....	610 F	Cath.
Emmanuel Missionary Coll.; Berrien Springs, Mich. (1874).....	P. W. Christian.....	688 C	Advent.
Emory and Henry Coll.; Emory, Va. (1836).....	F. G. Gibson.....	469 C	Meth.
Emory Univ.; Atlanta, Ga. (1836).....	G. C. White.....	2,639 M†	Meth.
Emporia, College of; Emporia, Kans. (1882).....	Luther E. Sharpe.....	266 C	Presb.
Erskine Coll.; Due West, S. C. (1839).....	R. C. Grier.....	310 C	Presb.
Evansville College; Evansville, Ind. (1854).....	L. B. Hale.....	860 C	Meth.
Fairleigh Dickinson Coll.; Rutherford, N. J. (1941).....	Peter Sammartino.....	921 C	Priv.
Fairmont State Coll.; Fairmont, W. Va. (1867).....	J. W. Pence.....	642 C	State
Fenn Coll.; Cleveland, Ohio (1881).....	G. B. Earnest (acting).....	594 C	Priv.
Fisk University; Nashville, Tenn. (1867).....	C. S. Johnson.....	617 C	Priv.
Flora Macdonald Coll.; Red Springs, N. C. (1896).....	M. S. Woodson.....	214 F	Presb.
Florida, Univ. of; Gainesville, Fla. (1853).....	J. H. Miller.....	8,165 C	State
Florida A & M Coll.; Tallahassee, Fla. (1887).....	G. W. Gore, Jr.....	1,985 C	State
Florida Southern Coll.; Lakeland (1885).....	L. M. Spivey.....	1,700 C	Meth.
Florida State Univ.; Tallahassee, Fla. (1857).....	D. S. Campbell.....	4,756 C	State
Fordham Univ., New York City (1841).....	Rev. L. J. McGinley.....	5,962 C ^a	Cath.
Fort Hays Kansas St. Coll.; Hays (1902).....	M. C. Cunningham.....	1,017 C	State
Franklin and Marshall Coll.; Lancaster, Penna. (1787).....	T. A. Distler.....	1,057 M†	Ev. & Ref.
Franklin Coll. of Ind.; Franklin, Ind. (1834).....	H. W. Richardson.....	378 C	Bapt.
Fresno State Coll.; Fresno, Calif. (1911).....	A. E. Joyal.....	2,618 C	State
Friends Univ.; Wichita, Kansas (1898).....	L. S. Cressman.....	428 C	Friends
Furman Univ.; Greenville, S. C. (1826).....	J. L. Plyler.....	1,112 C	Bapt.
Gannon College; Erie, Penna. (1944).....	J. J. Wehrle.....	485 M	Cath.
Gen. Beadle St. Teach. Coll.; Madison, S. Dak. (1881).....	V. A. Lowry.....	152 C	State
Geneva College; Beaver Falls, Penna. (1848).....	C. M. Lee.....	553 C	Presb.
Geo. Peabody Coll. for Teachers; Nashville, Tenn. (1875).....	H. H. Hill.....	1,671 C	Priv.
Geo. Pepperdine College; Los Angeles, Calif. (1937).....	Hugh M. Tiner.....	907 C	Priv.
Geo. Washington Univ.; Washington, D. C. (1821).....	C. H. Marvin.....	8,926 C	Priv.
Geo. Williams Coll.; Chicago, Ill. (1890).....	H. C. Coffman.....	242 C	Priv.
Georgetown College; Georgetown, Ky. (1829).....	S. S. Hill.....	544 C	Bapt.
Georgetown Univ., Washington, D. C. (1789).....	V. Rev. H. Guthrie.....	4,962 C	Cath.
Georgia, Univ. of; Athens (1785).....	O. C. Aderhold.....	3,971 C	State
Georgia Inst. of Tech.; Atlanta, Ga. (1885).....	B. R. Van Leer.....	3,162 M†	State
Georgia State Coll. for Women; Milledgeville (1889).....	G. H. Wells.....	650 F	State
Georgia Teachers Coll.; Collegeboro (1908).....	Z. S. Henderson.....	455 C	State
Georgian Court Coll.; Lakewood, N. J. (1908).....	Sister M. Anna.....	209 F	Cath.
Gettysburg Coll.; Gettysburg, Pa. (1832).....	W. C. Langsam.....	1,147 C	Luth.
Glenville State Coll.; Glenville, W. Va. (1872).....	H. B. Hefflin.....	395 C	State
Golden Gate Coll.; San Francisco, Calif. (1887).....	N. T. Miner.....	468 C	Priv.
Gonzaga Univ.; Spokane, Wash. (1887).....	F. E. Corkery.....	1,064 C	Cath.
Good Counsel Coll.; White Plains, N. Y. (1923).....	Mother M. Dolores.....	250 F	Cath.
Goshen Coll.; Goshen, Ind. (1894).....	E. E. Miller.....	524 C	Menn.
Goucher College; Baltimore, Md. (1885).....	O. F. Kraushaar.....	607 F	Priv.
Grambling Coll.; Grambling, La. (1901).....	R. W. E. Jones.....	1,383 C	State
Great Falls, Coll. of; Great Falls, Mont. (1932).....	Msgr. J. J. Donovan.....	374 C	Cath.
Greensboro College; Greensboro, N. C. (1838).....	H. H. Hutson.....	325 F	Meth.
Greenville Coll.; Greenville, Ill. (1892).....	H. J. Long.....	371 C	Meth.
Grinnell Coll.; Grinnell, Iowa (1846).....	S. N. Stevens.....	860 C	Priv.
Grove City Coll.; Grove City, Penna. (1876).....	W. C. Ketter.....	991 C	Priv.
Guilford Coll.; Guilford Coll., N. C. (1837).....	C. A. Milner.....	505 C	Friends
Gustavus Adolphus Coll.; St. Peter, Minn. (1862).....	E. M. Carlson.....	815 C	Luth.
Hamilton Coll.; Clinton, N. Y. (1812).....	R. W. McEwen.....	537 M	Priv.
Hamline Univ., St. Paul, Minn. (1854).....	W. C. Coffey.....	892 C	Meth.
Hampden-Sydney Coll., Hampden-Sydney, Va. (1776).....	E. G. Gammon.....	320 M	Presb.
Hampton Inst.; Hampton, Va. (1868).....	Alonzo G. Moron.....	1,125 C	Priv.
Hanover Coll.; Hanover, Ind. (1827).....	A. G. Parker, Jr.....	513 C	Priv.
Hardin-Simmons Univ.; Abilene, Texas (1891).....	R. N. Richardson.....	1,288 C	Bapt.
Harpur Coll.; Endicott, N. Y. (1950).....	G. G. Bartle.....	319 C	State

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Harris Teach. Coll.; St. Louis, Mo. (1857)	C. A. Naylor	534 C	City-St.
Hartwick Coll.; Oneonta, N. Y. (1928)	H. J. Arnold	408 C	Luth.
Harvard Univ.; Cambridge, Mass. (1636)	J. B. Conant	10,092 M†	Priv.
Hastings Coll.; Hastings, Neb. (1882)	D. D. Welch	538 C	Presb.
Haverford Coll.; Haverford, Penn. (1833)	G. F. White	485 M	Friends
Heidelberg Coll.; Tiffin, Ohio (1850)	Terry Wickham	587 C	Ev. & Ref.
Henderson State Teachers Coll.; Arkadelphia, Ark. (1929)	D. D. McBrien	920 C	State
Hendrix College; Conway, Ark. (1884)	Matt L. Ellis	449 C	Meth.
Hillsdale Coll.; Hillsdale, Mich. (1844)	J. Donald Phillips	447 C	Priv.
Hiram College; Hiram, Ohio (1850)	P. H. Fall	488 C	Priv.
Hofstra College; Hempstead, N. Y. (1935)	J. C. Adams	1,840 C	Priv.
Hollins Coll.; Hollins College, Va. (1842)	J. R. Everett	370 F	Priv.
Holy Cross, Coll. of the; Worcester, Mass. (1843)	V. Rev. J. A. O'Brien	1,841 M	Cath.
Holy Names, Coll. of the; Oakland, Calif. (1880)	Sister M. Rose	317 F	Cath.
Holy Names College; Spokane, Wash. (1912)*	Sister Francis Xavier	206 F	Cath.
Hood Coll.; Frederick, Md. (1893)	A. G. Truxal	459 F	Priv.
Hope College; Holland, Mich. (1851)	I. J. Lubbers	871 C	Ref.
Houghton Coll.; Houghton, N. Y. (1883)	S. W. Paine	567 C	Meth.
Howard Coll.; Birmingham, Ala. (1842)	H. G. Davis	830 C	Bapt.
Howard Payne Coll.; Brownwood, Texas (1889)	T. H. Taylor	750 C	Bapt.
Howard Univ.; Washington, D. C. (1867)	M. W. Johnson	3,555 C	Priv.
Humboldt St. Coll.; Arcata, Calif. (1914)	Cornelius H. Siemens	651 C	State
Hunter College; N. Y. C. (1870)	G. N. Shuster	7,640 F†	City
Huntingdon Coll.; Montgomery, Ala. (1854)	Hubert Searcy	617 C	Meth.
Huron Coll.; Huron, S. Dak. (1883)	G. F. McDougall	215 C	Presb.
Huston-Tillotson Coll.; Austin, Texas (1952)	M. S. Savage	800 C	Meth. & Cg.
Idaho, Coll. of; Caldwell (1891)	P. M. Pitman	418 C	Presb.
Idaho, Univ. of; Moscow, Idaho (1889)	J. E. Buchanan	2,830 C	State
Idaho State College; Pocatello, Idaho (1947)	C. W. McIntosh	1,058 C	State
Illinois, Univ. of; Urbana, Ill. (1867)	G. D. Stoddard	20,837 C	State
Illinois Coll.; Jacksonville, Ill. (1829)	H. G. Hudson	331 C	Priv.
Illinois Inst. of Tech.; Chicago (1892)	J. T. Rattaliata	2,037 C	Priv.
Illinois State Normal Univ.; Normal, Ill. (1857)	R. W. Fairchild	2,215 C	State
Illinois Wesleyan Univ.; Bloomington (1850)	M. J. Holmes	683 C	Meth.
Immaculate Coll.; Immaculata, Penna. (1920)	Mmgr. V. L. Burns	300 F	Cath.
Immaculate Heart Coll.; Los Angeles, Calif. (1916)	Sister M. Thecla	712 F†	Cath.
Incarinate Word Coll.; San Antonio, Texas (1881)	Sister M. Columkille	701 F	Cath.
Indiana Central Coll.; Indianapolis (1902)	I. L. Esch	343 C	Ev. U. B.
Indiana St. Teach. Coll.; Terre Haute (1865)*	R. N. Tirsey	1,857 C	State
Indiana Univ.; Bloomington (1820)	H. B. Wells	11,345 C	State
Iowa, State Univ. of; Iowa City (1847)	V. M. Hancher	6,973 C	State
Iowa State Coll. of A & M Arts; Ames (1858)	C. E. Friley	6,690 C	State
Iowa State Teachers Coll.; Cedar Falls (1876)	J. W. Maucker	2,074 C	State
Iowa Wesleyan Coll.; Mount Pleasant (1842)	J. R. Chadwick	266 C	Meth.
Jackson Coll.; Jackson, Miss. (1877)	J. L. Reddix	704 C	State
James Millikin Univ.; Decatur, Ill. (1901)	J. W. Malone	857 C	Presb.
Jamestown Coll.; Jamestown, N. Dak. (1883)	S. S. George	268 C	Presb.
John Carroll Univ.; Cleveland, Ohio (1886)	V. Rev. F. E. Welfle	1,358 M	Cath.
Johns Hopkins Univ.; Baltimore, Md. (1876)	D. W. Bronk	2,466 M†	Priv.
Johnson C. Smith Univ.; Charlotte, N. C. (1867)	Hardy Liston, Sr.	554 C	Presb.
Judson Coll.; Marion, Ala. (1838)	J. I. Riddle	174 F	Bapt.
Juniata Coll.; Huntingdon, Penna. (1876)	C. N. Ellis	536 C	Breth.
Kalamazoo College; Kalamazoo, Mich. (1833)	John Scott Everton	470 C	Priv.
Kansas, Univ. of; Lawrence, Kans. (1865)	Franklin D. Murphy	6,027 C	State
Kansas City, Univ. of; Missouri (1929)	C. R. Decker	1,076 C	Priv.
Kansas St. Coll. of Ag. & Applied Science; Manhattan (1863)	J. A. McCain	4,532 C	State
Kansas St. Teach. Coll.; Emporia, Kans. (1863)	David L. MacFarlane	1,106 C	State
Kansas State Teachers Coll.; Pittsburg (1903)	R. H. Hughes	1,607 C	State
Kent State Univ.; Kent, Ohio (1910)	G. A. Bowman	3,959 C	State
Kentucky, Univ. of; Lexington (1865)	H. L. Donovan	5,270 C	State
Kentucky State Coll.; Frankfort (1886)	R. B. Atwood	467 C	State
Kentucky Wesleyan Coll.; Owensboro (1866)*	O. W. Lever	195 C	Meth.
Kenyon College; Gambier, Ohio (1824)	G. K. Chalmers	457 M	Priv.
Keuka College; Keuka Park, N. Y. (1890)	Katherine G. Blyley	371 F	Bapt.
King College; Bristol, Tenn. (1867)	R. T. L. Liston	230 C	Presb.
Knox Coll.; Galesburg, Ill. (1837)	S. G. Umbeck	731 C	Priv.
Knoxville Coll.; Knoxville, Tenn. (1875)	J. A. Colston	275 C	Preb.

Institution, location and (date founded)	Chief executive	No. of students	Contro
Lafayette Coll.; Easton, Penna. (1826)	R. C. Hutchison	1,376 M	Presb.
La Grange Coll.; La Grange, Ga. (1831)	W. G. Henry, Jr.	250 C	Meth.
Lake Erie Coll.; Painesville, Ohio (1856)	Paul Weaver	150 F	Priv.
Lake Forest Coll.; Lake Forest, Ill. (1857)	E. A. Johnson	808 C	Presb.
Lane Coll.; Jackson, Tenn. (1882)	C. A. Kirkendoll	349 C	C. M. E.
Langston Univ.; Langston, Okla. (1897)	G. L. Harrison	676 C	State
La Salle Coll.; Philadelphia, Penna. (1863)	Brother E. Stanislaus	2,100 M	Cath.
La Sierra College; Arlington, Calif. (1922)	G. T. Anderson	743 C	Advent.
Lawrence Coll. of Wisconsin; Appleton, Wis. (1847)	N. M. Pusey	754 C	Priv.
Lebanon Valley Coll.; Annville, Penna. (1866)	F. K. Miller	453 C	Ev. U. B.
Lehigh Univ.; Bethlehem, Penna. (1865)	M. D. Whitaker	2,543 M†	Priv.
LeMoyne College; Memphis, Tenn. (1870)	H. F. Price	438 C	Cong.
Lenoir Rhyne Coll.; Hickory, N. C. (1891)	V. R. Cromer	756 C	Luth.
Lewis & Clark Coll.; Portland, Ore. (1867)	M. S. Odell	1,034 C	Presb.
Limestone Coll.; Gaffney, S. C. (1845)	O. N. Shands	203 F	Priv.
Lincoln Memorial Univ.; Harrogate, Tenn. (1897)	Dr. Robert L. Kincaid	374 C	Priv.
Lincoln Univ.; Jefferson City, Mo. (1866)	S. D. Scruggs	802 C	State
Lincoln Univ.; Lincoln University, Penna. (1854)	H. M. Bond	323 M	Priv.
Lindenwood College; St. Charles, Mo. (1827)	F. L. McCluer	293 F	Presb.
Linfield Coll.; McMinnville, Oreg. (1858)	H. L. Dillin	614 C	Bapt.
Livingstone College; Salisbury, N. C. (1879)	William Johnson Trent	417 C	A. M. E.
Long Beach St. Coll.; Long Beach, Calif.*	P. V. Peterson	960 C	State
Longwood College; Farmville, Va. (1884)	D. S. Lancaster	593 F	State
Loras College; Dubuque, Iowa (1839)	Most Rev. L. T. Lane	750 M	Cath.
Loretto Heights College; Loretto, Colo. (1892)	Sister F. Marie	500 F	Cath.
Louisiana Coll.; Pineville (1906)	G. E. Guinn	705 C	Bapt.
Louisiana Poly. Inst.; Ruston, La. (1894)*	R. L. Ropp	2,150 C	State
Louisiana St. Univ. & A & M Coll.; Baton Rouge (1859)	T. H. Middleton	6,608 C	State
Louisville, Univ. of; Ky. (1789)	Philip G. Davidson	2,708 C	Priv.
Lowell Textile Inst.; Lowell, Mass. (1895)	M. J. Lydon	500 C	State
Loyola College; Baltimore, Md. (1852)	Rev. T. J. Murray	943 M	Cath.
Loyola Univ., Chicago, Ill. (1870)	V. Rev. J. T. Hussey	6,844 C*	Cath.
Loyola Univ.; New Orleans, La. (1912)	V. Rev. W. P. Donnelly	2,269 M†	Cath.
Loyola Univ. of Los Angeles; Calif. (1911)	Rev. C. S. Casassa	1,300 M†	Cath.
Luther College; Decorah, Iowa (1861)	J. W. Yivisaker	669 C	Luth.
Lycoming Coll.; Williamsport, Penn. (1812)	J. W. Long	470 C	Meth.
Lynchburg Coll.; Lynchburg, Va. (1903)	O. W. Wake	438 C	D. Ch.
Macalester Coll.; St. Paul, Minn. (1885)	C. J. Turck	1,380 C	Presb.
MacMurray Coll. for Women; Jacksonville, Ill. (1846)	L. W. Norris	484 F	Meth.
McMurry Coll.; Abilene, Texas (1923)	H. G. Cooke	121 C	Meth.
McPherson Coll.; McPherson, Kansas (1887)	D. W. Bittinger	318 C	Breth.
Madison Coll.; Harrisonburg, Va. (1908)	G. T. Miller	970 F†	State
Maine, Univ. of; Orono (1865)	A. A. Hauck	2,807 C	State
Manchester Coll.; North Manchester, Ind. (1889)	V. F. Schwalm	608 C	Priv.
Manhattan Coll.; Riverdale, N. Y. (1853)	Brother B. Thomas	2,053 M	Cath.
Manhattanville Coll. of Sacred Heart; Purchase, N. Y. (1841)	Eleanor M. O'Byrne	415 F	Cath.
Marietta Coll.; Marietta, Ohio (1835)	W. B. Irvine	693 C	Priv.
Marquette Univ.; Milwaukee, Wis. (1881)	Rev. E. J. O'Donnell	6,084 C	Cath.
Marshall Coll.; Huntington, W. Va. (1837)	S. H. Smith	1,707 C	State
Mary Baldwin Coll.; Staunton, Va. (1842)	F. B. Lewis	256 F	Priv.
Mary Hardin-Baylor Coll.; Belton, Texas (1845)	A. C. Gettys	219 F	Bapt.
Mary Manse Coll.; Toledo, Ohio (1924)	Sister, V. deP. Kaley	71 F	Cath.
Mary Washington Coll. (Univ. of Va.); Fredericksburg, Va. (1908)	M. L. Combs	1,180 F	State
Marygrove Coll.; Detroit, Mich. (1910)	Sister M. Honora	722 F	Cath.
Maryknoll Teachers Coll.; Maryknoll, N. Y. (1931)	Mother M. J. Rogers	144 F	Cath.
Maryland, Univ. of; College Park (1807)	H. C. Byrd	8,613 C	State
Maryland St. Teach. Coll.; Bowie, Md. (1867)	W. E. Henry	268 C	State
Maryland St. Teach. Coll.; Frostburg (1899)	Lillian C. Compton	314 C	State
Maryland St. Teach. Coll.; Salisbury (1925)	J. D. Blackwell	250 C	State
Maryland St. Teach. Coll.; Towson (1866)	E. T. Hawkins	829 C	State
Marylhurst Coll.; Marylhurst, Oreg. (1930)	Sister M. E. Clare	240 F	Cath.
Marymount Coll.; Salina, Kansas (1922)	Mother M. Chrysostom	231 F	Cath.
Marymount Coll.; Tarrytown-on-Hudson, N. Y. (1907)*	Mother T. Dalton	500 F	Cath.
Maryville Coll.; Maryville, Tenn. (1819)	R. W. Lloyd	663 C	Presb.
Marywood Coll.; Scranton, Penna. (1915)	Sister, M. Eugenia	577 F	Cath.
Massachusetts, Univ. of; Amherst (1863)	R. A. Van Meter	3,308 C	State
Massachusetts Inst. of Tech.; Cambridge (1861)	J. R. Killian, Jr.	4,504 C	Priv.
Massachusetts St. Teach. Coll.; Bridgewater (1840)	C. C. Maxwell	562 C	State
Massachusetts St. Teach. Coll.; Fitchburg (1894)	E. F. White	470 C	State

Institution, location and (date founded)	Chief executive	No. of students	Control
Massachusetts St. Teachers Coll.; Framingham (1839).....	M. F. O'Connor.....	530 F	State
Massachusetts St. Teachers Coll.; N. Adams (1894).....	G. C. Bowman.....	200 C	State
Massachusetts St. Teach. Coll.; Salem (1854).....	E. A. Sullivan.....	555 C	State
Massachusetts St. Teach. Coll.; Worcester (1871).....	E. A. Sullivan.....	409 C	State
Medical Evangelists, Coll. of; Loma Linda, Calif. (1909).....	W. E. MacPherson, M.D.....	584 C	Advent.
Memphis State College; Memphis, Tenn. (1909).....	J. M. Smith.....	2,000 C	State
Mercer Univ.; Macon, Ga. (1833).....	Spright Dowell.....	914 C	Bapt.
Mercy Coll.; Detroit, Mich. (1941).....	Sister M. Lucille.....	379 F	Cath.
Mercyhurst Coll.; Erie, Penna. (1926).....	Mother M. Borgia.....	275 F	Priv.
Meredith Coll.; Raleigh, N. C. (1891).....	Carlyle Campbell.....	515 F	Bapt.
Miami, Univ. of; Coral Gables, Fla. (1926).....	B. F. Ashe.....	7,338 C	Priv.
Miami Univ.; Oxford, Ohio (1809).....	E. H. Hahne.....	4,552 C	State
Michigan, Univ. of; Ann Arbor (1817).....	Harlan Hatcher.....	16,416 C	State
Michigan Coll. of Mining & Tech.; Houghton (1885).....	G. C. Dillman.....	1,197 C	State
Michigan State Coll.; East Lansing (1855).....	J. A. Hannah.....	12,433 C	State
Michigan State Normal Coll.; Ypsilanti, Mich. (1849).....	E. B. Elliott.....	2,038 C	State
Middle Tennessee State Coll.; Murfreesboro (1911).....	Q. M. Smith.....	1,135 C	State
Middlebury Coll.; Middlebury, Vt. (1800).....	S. S. Stratton.....	1,213 C	Priv.
Midland Coll.; Fremont, Nebr. (1837).....	Rev. Paul W. Dieckman.....	324 C	Luth.
Midwestern Univ.; Wichita Falls, Texas (1922).....	J. B. Boran.....	1,263 C	City
Miles College; Birmingham, Ala. (1907).....	W. A. Bell.....	777 C	C.M.E.
Mills Coll.; Oakland, Calif. (1852).....	L. T. White, Jr.....	619 C	Priv.
Millsaps Coll.; Jackson, Miss. (1892).....	H. E. Finger, Jr.....	562 C	Meth.
Milwaukee-Downer Coll.; Milwaukee, Wis. (1851).....	J. B. Johnson, Jr.....	200 F	Priv.
Miner Teachers Coll.; Washington, D. C. (1851).....	E. A. Clark.....	515 C	City
Minnesota, Univ. of; Minneapolis (1851).....	J. L. Morrill.....	16,482 C	State
Minnesota St. Teach. Coll.; Bemidji (1919).....	C. R. Sattgast.....	420 C	State
Minnesota St. Teach. Coll.; Mankato (1867).....	C. L. Crawford.....	1,584 C	State
Minnesota St. Teachers Coll.; Moorhead (1888).....	O. W. Snarr.....	452 C	State
Minnesota St. Teach. Coll.; St. Cloud, Minn. (1869).....	George F. Budd.....	1,226 C	State
Minnesota St. Teach. Coll.; Winona (1856).....	Nels Minne.....	401 C	State
Misericordia Coll.; Dallas, Penna. (1923).....	Sister Gonzaga.....	505 F	Cath.
Mississippi, Univ. of; University, Miss. (1844).....	J. D. Williams.....	2,131 C	State
Mississippi Coll.; Clinton (1826).....	D. M. Nelson.....	900 C	Bapt.
Mississippi Southern Coll.; Hattiesburg (1910).....	R. C. Cook.....	2,263 C	State
Mississippi State Coll.; State Coll., Miss. (1878).....	F. T. Mitchell.....	2,820 C	State
Mississippi St. Coll. for Women; Columbus (1884).....	C. P. Hogarth.....	734 F	State
Missouri, Univ. of; Columbia (1839).....	F. A. Middlebush.....	7,859 C	State
Missouri Valley Coll.; Marshall (1888).....	M. E. Collins.....	357 C	Presb.
Monmouth Coll.; Monmouth, Ill. (1853).....	R. W. Gibson.....	575 C	Presb.
Montana School of Mines; Butte (1893).....	J. R. Van Pelt.....	247 C	State
Montana State Coll.; Bozeman, Mont. (1893).....	P. C. Gaines.....	2,427 C	State
Montana St. Univ.; Missoula, Mont. (1893).....	Carl McFarland.....	2,111 C	State
Moravian Coll.; Bethlehem, Penna. (1807).....	R. S. Haupt.....	205 M	Morav.
Morehead State Coll.; Morehead, Kentucky (1923).....	C. R. Spain.....	595 C	State
Morehouse Coll.; Atlanta, Ga. (1867).....	B. E. Mays.....	493 M	Priv.
Morgan State Coll.; Baltimore, Md. (1867).....	M. D. Jenkins.....	1,702 C	State
Morningside Coll.; Sioux City, Iowa (1889).....	E. A. Roadman.....	553 C	Meth.
Morris Brown Coll.; Atlanta, Ga. (1885)*.....	J. L. Lewis.....	531 C	A.M.E.
Mount Angel Seminary; St. Benedict, Ore. (1889).....	Rt. Rev. D. Jentges.....	89 M	Cath.
Mount Holyoke Coll.; South Hadley, Mass. (1837).....	R. G. Ham.....	1,284 F	Priv.
Mount Mary College; Milwaukee, Wis. (1913).....	E. A. Fitzpatrick.....	580 F	Cath.
Mount Mercy College; Pittsburgh, Pa. (1929).....	Sister M. Muriel.....	336 F	Priv.
Mount St. Agnes Coll.; Baltimore, Md. (1867).....	Sister M. Placode.....	145 F	Cath.
Mount St. Joseph-on-the-Ohio, College of; Same (1854).....	Sister M. Corona.....	438 F	Cath.
Mount St. Joseph Teach. Coll.; Buffalo, N. Y. (1938).....	Sister M. Hubert.....	307 F	Cath.
Mount St. Mary Coll.; Hooksett, N. H. (1934)*.....	Sister M. Maurilia.....	247 F	Cath.
Mount St. Mary's Coll.; Emmitsburg, Md. (1808).....	Rt. Rev. J. L. Sheridan.....	450 M	Cath.
Mount St. Mary's College, Los Angeles, Calif. (1925).....	Sister Agnes Marie.....	432 F	Cath.
Mount St. Scholastica Coll.; Atchison, Kans. (1863).....	Rev. Mother A. Schroll.....	370 F	Cath.
Mount St. Vincent, College of; On-Hudson, N. Y. (1847).....	F. Cardinal Spellman.....	447 F	Cath.
Mount Union Coll.; Alliance, Ohio (1846).....	C. B. Ketcham.....	653 C	Meth.
Muhlenberg Coll.; Allentown, Penna. (1848).....	M. S. Greth.....	573 M	Luth.
Mundelein Coll.; Chicago, Ill. (1930).....	Sister M. J. Michael.....	720 F	Cath.
Murray State Coll.; Murray, Ky. (1922).....	R. H. Woods.....	1,225 C	State
Muskingum Coll.; New Concord, Ohio (1837).....	R. N. Montgomery.....	682 C	Presb.
National Coll. of Ed.; Evanston, Ill. (1886).....	K. R. Johnson.....	356 C	Priv.
Nazareth Coll.; Nazareth, Mich. (1924).....	Sister M. Kevin.....	265 F	Cath.
Nazareth Coll.; Rochester, N. Y. (1924).....	Rev. Mother M. Helena.....	406 F	Cath.

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Nazareth Coll. & Acad.; Nazareth, Ky. (1814)	Sister M. Gertrude	300 F	Cath.
Nebraska, Univ. of; Lincoln (1869)	R. G. Gustavson	5,788 C	State
Nebraska St. Teach. Coll.; Chadron (1911)	W. G. Brooks	304 C	State
Nebraska St. Teach. Coll.; Kearney (1905)	H. L. Cushing	650 C	State
Nebraska St. Teach. Coll.; Peru (1867)	N. S. Gomon	264 C	State
Nebraska St. Teach. Coll.; Wayne (1910)	J. D. Rice	551 C	State
Nebraska Wesleyan Univ.; Lincoln (1888)	C. C. Bracy	587 C	Meth.
Nevada, Univ. of; Reno (1874)	M. W. Stout	1,088 C	State
New Hampshire, Univ. of; Durham (1866)	R. F. Chandler, Jr.	3,159 C	State
New Hampshire St. Teach. Coll.; Keene (1909)	L. P. Young	408 C	State
New Hampshire St. Teach. Coll.; Plymouth (1871)	H. E. Hyde	271 C	State
New Jersey St. Teach. Coll.; Glassboro (1923)	E. F. Bunce	491 C	State
New Jersey St. Teach. Coll.; Jersey City (1929)	F. A. Irwin	672 C	State
New Jersey St. Teach. Coll.; Newark (1855)	E. G. Wilkins	684 C	State
New Jersey St. Teach. Coll.; Paterson (1855)	C. S. Wightman	519 C	State
New Jersey St. Teach. Coll.; Trenton (1855)	R. L. West	833 C	State
New Jersey St. Teach. Coll.; Upper Montclair (1908)	E. DeA. Partridge	998 C	State
New Mexico, Univ. of; Albuquerque (1889)	T. L. Popejoy	2,410 C	State
New Mexico Coll. of A & M Arts; State College, N. M. (1889)	J. W. Branson	1,653 C	State
New Mexico Highlands Univ.; Las Vegas (1893)	T. C. Donnelly	620 C	State
New Mexico Inst. of Min. & Tech.; Socorro (1889)	E. J. Workman	155 C	State
New Mexico Military Inst.; Roswell (1893)	C. F. Ward	267 M	State
New Mexico Western Coll.; Silver City (1893)	J. C. Miller	431 C	State
New Rochelle, Coll. of; New York (1904)	Mother M. D. Dunkerley	762 F	Cath.
New York, Coll. of the City of (1847)	B. G. Gallagher	16,371 C	City
New York St. Coll. for Teach.; Albany (1844)	E. R. Collins	1,577 C	State
New York St. Coll. for Teach.; Buffalo (1866)	H. M. Rice	2,450 C	State
New York St. Teach. Coll.; Brockport (1841)	D. M. Tower	1,132 C	State
New York St. Teach. Coll.; Cortland (1863)	D. V. Smith	1,235 C	State
New York St. Teach. Coll.; Fredonia, N. Y. (1867)	Robert S. Thompson	706 C	State
New York St. Teach. Coll.; Genesee (1867)	H. G. Espy	611 C	State
New York St. Teach. Coll.; New Paltz (1885)	W. J. Haggerty	811 C	State
New York St. Teach. Coll.; Oneonta (1889)	R. F. Netzer	722 C	State
New York St. Teach. Coll.; Oswego (1861)	F. S. Brown	1,241 C	State
New York St. Teach. Coll.; Plattsburgh (1890)	E. E. Redcay	784 C	State
New York St. Teach. Coll.; Potsdam (1869)	F. W. Crumb	672 C	State
New York Univ.; N. Y. C. (1831)	H. T. Heald	16,011 C	Priv.
Newark Coll. of Eng.; Newark, N. J. (1881)	R. W. Van Houten	1,524 C	City & St.
Newberry Coll.; Newberry, S. C. (1856)	J. C. Kinar	322 C	Luth.
Niagara Univ.; Niagara Falls, N. Y. (1856)	Rev. F. L. Meade	1,398 C	Cath.
North Carolina, A & Tech. Coll.; Greensboro (1891)	F. D. Bluford	2,635 C	State
North Carolina, Univ. of; Chapel Hill (1789)	Gordon Gray	5,379 C	State
North Carolina, Woman's Coll. of the Univ. of; Greensboro (1892)	E. K. Graham	2,437 F	State
North Carolina Coll.; Durham (1910)	A. Elder	1,590 C	State
North Carolina St. Coll. of A & Eng.; Raleigh (1889)	J. W. Harrelson	3,370 C	State
North Carolina St. Teach. Coll.; Elizabeth City (1891)	S. D. Williams	505 C	State
North Carolina St. Teach. Coll.; Fayetteville (1877)	J. W. Seabrook	661 C	State
North Carolina St. Teach. Coll.; Winston-Salem (1892)	F. L. Atkins	594 C	State
North Central Coll.; Naperville, Ill. (1861)	C. H. Geiger	547 C	Evang.
North Dakota, Univ. of; Grand Forks (1883)	J. C. West	1,918 C	State
North Dakota Ag. Coll.; Fargo (1890)	F. S. Hultz	1,832 C	State
North Dakota St. Normal & Ind. Coll.; Ellendale (1899)	J. C. McMillan	141 C*	State
North Dakota St. Teach. Coll.; Dickinson (1917)*	C. E. Scott	254 C	State
North Dakota St. Teach. Coll.; Mayville (1889)	C. P. Lura	189 C	State
North Dakota St. Teach. Coll.; Minot, N. Dak. (1913)	C. C. Swain	558 C	State
North Dakota St. Teach. Coll.; Valley City (1890)	R. L. Lokken	365 C	State
North Georgia Coll.; Dahlonega (1873)	M. E. Hoag	524 C	State
North Texas St. Coll.; Denton (1890)	J. C. Matthews	4,005 C	State
Northeast Missouri St. Teach. Coll.; Kirksville (1867)	W. H. Ryle	1,281 C	Priv.
Northeastern St. Coll.; Tahlequah, Okla. (1846)	H. E. Garrison	857 C	State
Northeastern Univ.; Boston, Mass. (1898)	C. S. Eli	4,160 C	Priv.
Northern Baptist Theol. Seminary, Chicago, Ill. (1913)	C. W. Koller	331 C	Bapt.
Northern Illinois St. Teach. Coll.; DeKalb (1895)	L. A. Holmes	1,650 C	State
Northern Michigan Coll. of Ed.; Marquette (1899)	H. A. Tape	571 C	State
Northern St. Teach. Coll.; Aberdeen, S. Dak. (1901)	Warren C. Lovinger	710 C	State
Northwest Missouri St. Coll.; Maryville (1905)	J. W. Jones	795 C	State
Northwest Nazarene Coll.; Nampa, Idaho (1913)	J. E. Riley	453 C	Naz.
Northwestern St. Coll.; Alva, Okla. (1937)	S. C. Percefull	438 C	State
Northwestern State Coll.; Natchitoches, La. (1884)	H. L. Prather	1,140 C	State
Northwestern University; Evanston & Chi., Ill. (1851)	James Roscoe Miller	7,655 C	Priv.
Norwich Univ.; Northfield, Vt. (1819)	E. N. Harmon	625 M	Priv.

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Notre Dame, Univ. of; Notre Dame, Ind. (1842).....	Rev. T. M. Hesburgh.....	4,880 M	Cath.
Notre Dame Coll.; South Euclid, Ohio (1922).....	Mother M. Anselm.....	300 F	Cath.
Notre Dame Coll. of Staten Island, N. Y. (1931).....	Mother St. Egbert.....	260 F	Cath.
Notre Dame of Maryland, Coll. of; Baltimore (1875).....	Sister M. Mary.....	330 F	Cath.
Oberlin Coll.; Oberlin, Ohio (1833).....	W. E. Stevenson.....	1,955 C	Priv.
Occidental Coll.; Los Angeles, Calif. (1887).....	A. G. Coons.....	1,345 C	Presb.
Oglethorpe Univ.; Atlanta, Ga. (1835).....	Philip Weltner.....	143 C	Priv.
Ohio State Univ.; Columbus (1870).....	H. L. Bevis.....	14,536 C	State
Ohio Univ.; Athens (1804).....	J. C. Baker.....	4,090 C	State
Ohio Wesleyan Univ.; Delaware (1842).....	A. S. Fleming.....	1,892 C	Priv.
Oklahoma, Univ. of; Norman (1890).....	G. L. Cross.....	7,474 C	State
Oklahoma A & M Coll.; Stillwater (1891).....	O. S. Willham.....	7,043 C	State
Oklahoma City University; Okla. (1904).....	C. Q. Smith.....	573 C	Meth.
Oklahoma Coll. for Women; Chickasha (1908).....	Dan Proctor.....	762 F	State
Omaha, Univ. of; Omaha, Nebr. (1908).....	P. M. Bail.....	1,419 C	City
Oregon, Univ. of; Eugene (1876).....	H. K. Newburn.....	4,878 C	State
Oregon Coll. of Education; Monmouth (1856).....	R. J. Maaske.....	436 C	State
Oregon State Coll.; Corvallis (1868).....	A. L. Strand.....	4,418 C	State
Ottawa Univ.; Ottawa, Kans. (1865).....	A. B. Martin.....	355 C	Bapt.
Otterbein Coll.; Westerville, Ohio (1847).....	J. G. Howard.....	642 C	Ev. U. B.
Our Lady of the Elms, Coll. of; Chicopee, Mass. (1928).....	Rev. C. J. Weldon.....	250 F	Cath.
Our Lady of the Lake Coll.; San Antonio, Tex. (1896)*.....	J. L. McMahon.....	431 F	Cath.
Ozarks, Coll. of the; Clarksville, Ark. (1834).....	J. P. Vincent.....	178 C	Presb.
Pacific, College of the; Stockton, Calif. (1851).....	R. E. Burns.....	1,103 C	Meth.
Pacific Lutheran Coll.; Parkland, Wash. (1894).....	S. C. Eastvold.....	789 C	Luth.
Pacific Union Coll.; Angwin, Calif. (1882).....	J. E. Weaver.....	878 C	Advent.
Pacific Univ.; Forest Grove, Ore. (1849).....	W. C. Giersbach.....	667 C	Cong.
Paine Coll.; Augusta, Ga. (1883).....	E. C. Peters.....	342 C	Meth.
Park Coll.; Parkville, Mo. (1875).....	J. L. Zwingle.....	362 C	Presb.
Parsons Coll.; Fairfield, Iowa (1875).....	T. E. Shearer.....	264 C	Presb.
Pasadena Coll.; Pasadena, Calif. (1902).....	W. T. Purkiser.....	573 C	Naz.
Pennsylvania, Univ. of; Philadelphia (1740).....	H. E. Stassen.....	8,237 C	Priv.
Pennsylvania Coll. for Women; Pittsburgh (1869).....	P. R. Anderson.....	483 F	Priv.
Pennsylvania St. Coll.; State College (1855).....	M. S. Eisenhower.....	9,795 C	State
Penn. St. Teachers Coll.; Bloomsburg, Penna. (1839).....	H. A. Andrus.....	800 C	State
Penn. St. Teach. Coll.; California (1852).....	R. M. Steele.....	572 C	State
Penn. St. Teach. Coll.; Cheyney (1837).....	J. H. Duckrey.....	354 C	State
Penn. St. Teach. Coll.; Clarion (1856).....	P. G. Chandler.....	506 C	State
Penn. St. Teach. Coll.; East Stroudsburg (1893).....	J. F. Noonan.....	782 C	State
Penn. St. Teach. Coll.; Edinboro (1861).....	L. H. Van Houten.....	465 C	State
Penn. State Teach. Coll., Indiana (1875).....	W. E. Pratt.....	1,421 C	State
Penn. State Teach. Coll.; Kutztown, Penna. (1866).....	Q. A. W. Rohrbach.....	742 C	State
Penn. State Teach. Coll.; Lock Haven, Penna. (1870).....	R. T. Parsons.....	440 C	State
Penn. State Teach. Coll.; Mansfield, Penna. (1857).....	J. G. Morgan.....	528 C	State
Penn. St. Teach. Coll.; Millersville (1855).....	D. L. Biemesderfer.....	659 C	State
Penn. St. Teach. Coll.; Shippensburg (1871).....	H. L. Kriner.....	663 C	State
Penn. State Teach. Coll.; Slippery Rock (1889).....	D. W. Houk.....	726 C	State
Penn. St. Teach. Coll.; West Chester (1871).....	C. S. Swope.....	1,538 C	State
Philander Smith Coll.; Little Rock, Ark. (1868).....	M. LaFayette Harris.....	606 C	Meth.
Phillips Univ.; Enid, Okla. (1907).....	E. S. Briggs.....	685 C	D. of C.
Pittsburgh, Univ. of; Pittsburgh, Penna. (1877).....	R. H. Fitzgerald.....	7,944 C	Priv.
Pomona Coll.; Claremont, Calif. (1887).....	E. W. Lyon.....	986 C	Priv.
Portland, Univ. of; Portland, Ore. (1901).....	Michael J. Gavin.....	1,250 C	Cath.
Prairie View A & M Coll.; Prairie View, Texas (1876).....	E. B. Evans.....	2,223 C	State
Pratt Inst.; Brooklyn, N. Y. (1887).....	Charles Pratt.....	1,013 C	Priv.
Presbyterian Coll.; Clinton, S. C. (1880).....	M. W. Brown.....	390 C	Presb.
Princeton Univ.; Princeton, N. J. (1746).....	H. W. Dodds.....	2,900 M	Priv.
Principia Coll.; Elmhurst, Ill. (1898).....	F. E. Morgan.....	450 C	Chi. Sc.
Providence Coll.; Providence, R. I. (1917).....	V. Rev. R. J. Slavin.....	1,495 M	Cath.
Puget Sound, Coll. of; Tacoma, Wash. (1888).....	R. F. Thompson.....	1,057 C	Meth.
Purdue Univ.; Lafayette, Ind. (1869).....	F. L. Hovde.....	8,645 C	State
Queens Coll.; Charlotte, N. C. (1857).....	C. C. Jennigan.....	259 F†	Presb.
Queens Coll.; Flushing, N. Y. (1937).....	J. J. Theobald.....	3,638 C	City
Radcliffe Coll.; Cambridge, Mass. (1879).....	W. K. Jordan.....	1,300 F	Priv.
Radford Coll.; Radford, Va. (1910).....	C. K. Martin, Jr.....	754 F	State
Randolph-Macon Coll.; Ashland, Va. (1830).....	J. E. Moreland.....	389 M	Meth.

Institution, location and (date founded)	Chief executive	No. of students	Control
Randolph-Macon Woman's Coll.; Lynchburg, Va. (1891).....	W. F. Quillian, Jr.....	592 F	Meth.
Redlands, Univ. of; Redlands, Calif. (1909).....	George H. Armacost.....	922 C	Bapt.
Reed Coll.; Portland, Ore. (1911).....	D. S. Ballantine.....	570 C	Priv.
Regis Coll.; Weston, Mass. (1927).....	Sister M. Alice.....	593 F	Cath.
Rensselaer Polytechnic Inst.; Troy, N. Y. (1824).....	L. W. Houston.....	2,769 C	Priv.
Rhode Island, Univ. of; Kingston, R. I. (1892).....	C. R. Woodward.....	1,841 C	State
Rhode Island Coll. of Ed.; Providence, R. I. (1854).....	F. J. Donovan.....	447 C	State
Rhode Island School of Design; Providence (1877).....	M. W. Sullivan.....	612 C	Priv.
Rice Institute, Houston, Texas (1912).....	W. V. Houston.....	1,526 C	Priv.
Richmond, Univ. of; Richmond, Va. (1830).....	G. M. Modlin.....	2,164 Co	Bapt.
Ripon Coll.; Ripon, Wis. (1851).....	C. G. Kuebler.....	632 C	Priv.
Rivier Coll.; Nashua, N. H. (1933).....	Sister M. St. Pascal.....	136 F	Cath.
Roanoke Coll.; Salem, Va. (1842).....	H. S. Oberly.....	364 C	Luth.
Rochester, Univ. of; Rochester, N. Y. (1850).....	C. W. de Kiewiet.....	4,751 C	Priv.
Rockford Coll.; Rockford, Ill. (1847).....	Mary A. Cheek.....	236 F	Priv.
Rockhurst Coll.; Kansas City, Mo. (1910).....	Rev. M. E. Van Ackeren.....	338 M	Cath.
Rollins Coll.; Winter Park, Fla. (1885).....	H. F. McKean.....	556 C	Priv.
Roosevelt Coll.; Chicago, Ill. (1945).....	E. J. Sparling.....	3,710 C	Priv.
Rosary Coll.; River Forest, Ill. (1901).....	Sister M. Timothea.....	654 F	Cath.
Rose Polytechnic Inst.; Terre Haute, Ind. (1874).....	F. L. Wilkinson, Jr.....	262 M	Priv.
Rosemont College of the Holy Child Jesus; Rosemont, Pa. (1921).....	Mother Mary Chrysostom.....	334 F	Cath.
Russel Sage Coll.; Troy, N. Y. (1916).....	L. A. Froman.....	525 F	Priv.
Rutgers Univ.; New Brunswick, N. J. (1766).....	L. W. Jones.....	7,339 Co ^a	State
Sacramento St. Coll.; Calif. (1947).....	G. H. West.....	829 C	State
St. Ambrose Coll.; Davenport, Iowa (1882).....	Rev. Msgr. A. J. Burke.....	760 C	Cath.
St. Anselm's Coll.; Manchester, N. H. (1889).....	Rev. B. C. Dolan.....	545 M	Cath.
St. Augustine's Coll.; Raleigh, N. C. (1867).....	H. L. Trigg.....	423 C	Epis.
St. Benedict, Coll. of; St. Joseph, Minn. (1913).....	Mother R. Peters.....	230 F	Cath.
St. Benedict's Coll.; Atchison, Kans. (1857).....	Rev. C. McDonald.....	410 M	Cath.
St. Bernardine of Siena Coll.; Loudonville, N. Y. (1937).....	Rev. B. J. Campbell.....	1,554 C	Cath.
St. Bonaventure Univ.; St. Bonaventure, N. Y. (1856).....	Rev. J. Lalor.....	1,416 M	Cath.
St. Catherine, Coll. of; St. Paul, Minn. (1905).....	Sister Antonine.....	805 F	Cath.
St. Edward's Seminary; Kenmore, Wash. (1931).....	V. Rev. J. R. Sullivan.....	141 M	Cath.
St. Elizabeth, Coll. of; Convent Station, N. J. (1899).....	Sister H. M. Mahoney.....	534 F	Cath.
St. Francis, Coll. of; Joliet, Ill. (1920).....	Sister M. Aniceta.....	358 F	Cath.
St. Francis Coll.; Loretto, Pa. (1847).....	V. Rev. J. M. Veigle.....	359 C	Cath.
St. Francis Xavier Coll. for Women; Chicago, Ill. (1912).....	Sister M. Huberta.....	263 F	Cath.
St. John Coll.; Cleveland, Ohio (1928).....	Msgr. R. B. Navin.....	518 F	Cath.
St. John's Coll.; Camarillo, Calif. (1939).....	V. Rev. F. B. Koepfer.....	157 M	Cath.
St. John's Univ.; Brooklyn, N. Y. (1870).....	V. Rev. J. A. Flynn.....	3,271 C	Cath.
St. John's Univ.; Collegeville, Minn. (1857).....	Rt. Rev. B. Dworschak.....	790 M	Cath.
St. Joseph Coll.; Emmitsburg, Md. (1809).....	Sister M. Mary.....	218 F	Priv.
St. Joseph Coll.; West Hartford, Conn. (1932).....	Mother M. Ethelreda.....	360 F	Cath.
St. Joseph's Coll.; Collegeville, Ind. (1889).....	V. Rev. R. H. Gross.....	459 M	Cath.
St. Joseph's Coll.; Philadelphia, Pa. (1851).....	V. Rev. E. G. Jacklin.....	1,300 M†	Cath.
St. Joseph's Coll. for Women; Brooklyn, N. Y. (1916).....	Rt. Rev. W. T. Dillon.....	330 F	Cath.
St. Lawrence Univ.; Canton, N. Y. (1856).....	E. G. Bewkes.....	1,250 C	Priv.
St. Louis Univ.; St. Louis, Mo. (1818).....	V. Rev. P. C. Reinert.....	5,534 C	Cath.
St. Martin's Coll.; Olympia, Wash. (1895).....	Rt. Rev. R. Heider.....	150 M	Cath.
St. Mary Coll.; Xavier, Kans. (1920).....	A. M. Murphy.....	285 F	Cath.
St. Mary of the Springs, Coll. of; Columbus, Ohio (1911).....	Sister M. Angelita.....	200 F	Cath.
St. Mary-of-the-Wasatch, Coll. of; Salt Lake City Utah (1875).....	Sister M. Consolata.....	87 F	Cath.
St. Mary-of-the-Woods Coll.; Ind. (1840).....	Rev. Mother M. Helene.....	328 F	Cath.
St. Mary's Coll.; Notre Dame, Ind. (1844).....	Sister M. Madeleva.....	566 F	Cath.
St. Mary's Coll.; St. Mary's, Calif. (1863).....	Brother W. Thomas.....	400 M	Cath.
St. Mary's Coll.; Winona, Minn. (1913)*.....	Brother J. Ambrose.....	540 M	Cath.
St. Mary's Dominican Coll.; New Orleans, La. (1910).....	Sister M. Louise.....	202 F	Cath.
St. Mary's Seminary; Baltimore, Md. (1791).....	Rev. L. P. McDonald.....	395 M	Cath.
St. Mary's Univ.; San Antonio, Tex. (1852).....	Rev. L. J. Blume.....	1,209 M†	Cath.
St. Michael's Coll.; Winoski Park, Vt. (1904).....	V. Rev. D. P. Lyons.....	750 M	Priv.
St. Norbert Coll.; West De Pere, Wis. (1898).....	Rev. S. M. Killen.....	479 M	Cath.
St. Olaf Coll.; Northfield, Minn. (1874).....	C. M. Granskou.....	1,483 C	Luth.
St. Patrick's Seminary; Menlo Park, Calif. (1898).....	Rev. T. C. Mulligan.....	143 M	Cath.
St. Paul Seminary, Inc.; St. Paul, Minn. (1895).....	R. G. Bandas.....	360 M	Cath.
St. Peter's Coll.; Jersey City, N. J. (1872).....	V. Rev. J. J. Shanahan.....	1,550 M†	Cath.
St. Rose, Coll. of; Albany, N. Y. (1920).....	Sister Rose of Lima.....	433 F	Cath.
St. Scholastica, Coll. of; Duluth, Minn. (1892).....	Mother A. Braegelman.....	420 F	Cath.
St. Teresa, Coll. of; Kansas City, Mo. (1917).....	Sister M. B. O'Neill.....	262 F	Cath.
St. Teresa, Coll. of; Winona, Minn. (1911)*.....	Sister M. Rachael.....	535 F	Cath.
St. Thomas, Coll. of; St. Paul, Minn. (1885).....	Rev. V. J. Flynn.....	1,246 M	Cath.

Institution, location and (date founded)	Chief executive	No. of students	Control
St. Vincent Coll.; Latrobe, Pa. (1846).....	Rev. D. Strittmatter.....	710 M	Cath.
Salem Academy and Coll.; Winston-Salem, N. C. (1772).....	D. H. Gramley.....	246 F	Morav.
Sam Houston St. Teach. Coll.; Huntsville, Tex. (1879).....	Harmon Lowman.....	1,455 C	State
San Diego St. Coll.; San Diego, Calif. (1897).....	M. A. Love.....	3,302 C	State
San Francisco, U. of; Calif. (1855).....	Rev. W. J. Dunne.....	1,112 M	Cath.
San Francisco Coll. for Women; Calif. (1921).....	Mother L. Mejia.....	500 F	Cath.
San Francisco St. Coll.; Calif. (1899).....	J. P. Leonard.....	3,828 C	State
San Jose St. Coll.; San Jose, Calif. (1862).....	J. T. Wahlgquist.....	5,936 C	State
San Rafael Dominican Coll. of; Calif. (1896).....	Sister M. Patrick.....	285 F	Cath.
Santa Clara Univ. of; Santa Clara, Calif. (1851).....	Rev. H. J. Hauck.....	1,082 M	Cath.
Sarah Lawrence Coll.; Bronxville, N. Y. (1926).....	Harold Taylor.....	361 F	Priv.
Savannah St. Coll.; Georgia (1890).....	W. K. Payne.....	787 C	State
Scarritt Coll. for Christian Workers; Nashville, Tenn. (1892).....	H. C. Stuntz.....	39 C	Priv.
Scranton, Univ. of; Scranton, Pa. (1888).....	V. Rev. J. E. Gallery.....	993 M	Cath.
Scripps Coll.; Claremont, Calif. (1926).....	Frederick Hard.....	217 F	Priv.
Seattle Pacific Coll.; Seattle, Wash. (1891).....	C. H. Watson.....	626 C	Meth.
Seattle Univ.; Seattle, Wash. (1891).....	V. Rev. A. A. Lemieux.....	1,685 C	Cath.
Seneca, Colleges of the; Geneva, N. Y. ⁹	A. W. Brown.....	1,028 Co	Priv.
Seton Hall Univ.; South Orange, N. J. (1856).....	Msgr. J. L. McNulty.....	3,103 C	Cath.
Seton Hill Coll.; Greensburg, Pa. (1883).....	Rev. W. G. Ryan.....	403 F	Cath.
Shaw Univ.; Raleigh, N. C. (1865).....	W. R. Strasser.....	594 C	Bapt.
Shepherd St. Coll.; Shepherdstown, W. Va. (1871).....	O. S. Ikenberry.....	381 C	State
Shorter Coll.; Rome, Ga. (1873).....	C. W. Burts.....	228 F	Bapt.
Siena Heights Coll.; Adrian, Mich. (1919).....	Rev. Mother M. Gerald.....	400 F	Cath.
Simmons Coll.; Boston, Mass. (1899).....	Rancroft Reatley.....	961 F	Priv.
Simpson Coll.; Indianola, Iowa (1860).....	E. E. Voigt.....	462 C	Meth.
Skidmore Coll.; Saratoga Springs, N. Y. (1911).....	H. T. Moore.....	1,074 F	Priv.
Smith Coll.; Northampton, Mass. (1871).....	B. F. Wright.....	2,280 F	Priv.
South, Univ. of the; Sewanee, Tenn. (1857).....	Edward McCrady.....	400 M	Epis.
South Carolina, A and M Coll. of; Orangeburg (1896).....	B. C. Turner.....	1,170 C	State
South Carolina, Univ. of; Columbia (1801).....	Donald Russell.....	3,176 C	State
South Dakota, Univ. of; Vermillion (1882).....	I. D. Weeks.....	1,281 C	State
South Dakota School of Mines and Tech.; Rapid City (1885).....	W. E. Wilson.....	344 C	State
South Dakota St. Coll. of A & M Arts; Brookings (1881).....	J. W. Headley.....	1,535 C	State
Southeast Missouri St. Coll.; Cape Girardeau (1873).....	W. W. Parker.....	852 C	State
Southeastern Louisiana Coll.; Hammond (1925).....	C. L. Barrow.....	834 C	State
Southeastern St. Coll.; Durant, Okla.	T. T. Montgomery.....	1,011 C	State
Southern California, Univ. of; Los Angeles (1860).....	F. D. Fagg, Jr.....	8,007 C	Priv.
Southern Illinois Univ.; Carbondale (1869).....	D. W. Morris.....	2,316 C	State
Southern Methodist Univ.; University Park, Tex. (1911).....	Umphrey Lee.....	4,474 C	Priv.
Southern Missionary Coll.; Collegedale, Tenn. (1916).....	K. A. Wright.....	356 C	Advent.
Southern Oregon Coll. of Education; Ashland (1926).....	E. N. Stevenson.....	587 C	State
Southern St. Teach. Coll.; Springfield, S. Dak. (1881).....	J. H. Kramer.....	150 C	State
Southern, Univ. and A & M Coll.; Baton Rouge, La. (1914).....	F. G. Clark.....	2,242 C	State
Southwest Missouri St. Coll.; Springfield (1906).....	Roy Ellis.....	1,454 C	State
Southwest Texas St. Teach. Coll.; San Marcos (1901).....	J. Q. Flowers.....	1,604 C	State
Southwestern at Memphis, Tenn. (1848).....	P. N. Rhodes.....	418 C	Presb.
Southwestern Coll.; Winfield, Kans. (1885).....	A. W. Murray.....	357 C	Meth.
Southwestern Louisiana Inst.; Lafayette (1898).....	J. L. Fletcher.....	2,186 C	State
Southwestern St. Coll.; Weatherford, Okla. (1903).....	R. H. Burton.....	900 C	State
Southwestern Univ.; Georgetown, Tex. (1840).....	W. P. Finch.....	393 C	Meth.
Spelman Coll.; Atlanta, Ga. (1881).....	F. M. Read.....	393 F	Bapt.
Spring Hill Coll.; Spring Hill, Ala. (1930).....	V. Rev. A. C. Smith.....	814 C	Cath.
Springfield Coll.; Springfield, Mass. (1885).....	T. W. Merriam (acting).....	1,063 C	Priv.
Stanford Univ.; Stanford, Calif. (1885).....	J. E. W. Sterling.....	6,831 C	Priv.
Stephen F. Austin St. Coll.; Nacogdoches, Tex. (1923).....	P. L. Boynton.....	1,297 C	State
Stetson Univ.; DeLand, Fla. (1883).....	J. O. Edmunds.....	929 C	Bapt.
Stevens Inst. of Tech.; Hoboken, N. J. (1870).....	J. H. Davis.....	1,834 M	Priv.
Stout Inst.; Menomonie, Wis. (1903).....	V. C. Fryklund.....	633 C	State
Stowe Teach. Coll.; St. Louis, Mo. (1909).....	Ruth M. Harris.....	393 C	City
Sul Ross St. Coll.; Alpine, Tex. (1917).....	Bryan Wildenthal.....	664 C	State
Susquehanna Univ.; Selingsgrove, Pa. (1858).....	G. M. Smith.....	460 C	Luth.
Swarthmore Coll.; Swarthmore, Pa. (1864).....	J. W. Nason.....	850 C	Priv.
Sweet Briar Coll.; Sweet Briar, Va. (1901).....	Anne G. Pannell.....	448 F	Priv.
Syracuse Univ.; Syracuse, N. Y. (1870).....	W. T. Tolley.....	13,504 C	Priv.
Tallahassee Coll.; Tallahassee, Ala. (1867).....	A. D. Beittel.....	301 C	Cong.
Tarkio Coll.; Tarkio, Mo. (1883)*.....	C. H. Canfield.....	211 C	Presb.
Taylor Univ.; Upland, Ind. (1845).....	E. H. Bergwall.....	430 C	Priv.
Temple Univ.; Philadelphia, Penna. (1884).....	R. L. Johnson.....	6,866 C	Priv.
Tennessee, Univ. of; Knoxville (1794).....	C. E. Brehm.....	4,698 C	State

Institution, location and (date founded)	Chief executive	No. of students	Control
Tennessee A and Ind. St. Univ.; Nashville (1909).....	W. S. Davis.....	1,548 C	State
Tennessee Polytechnic Inst.; Cookeville (1915).....	Everett Derryberry.....	1,600 C	State
Texas, Univ. of; Austin (1881).....	J. P. Hart.....	11,823 C	State
Texas A and M Coll.; College Station, Texas (1876).....	M. T. Harrington.....	6,106 M	State
Texas Christian Univ.; Ft. Worth, Tex. (1873).....	M. E. Sadler.....	2,369 C	D. of C.
Texas Coll.; Tyler (1894).....	D. R. Glass.....	746 C	Meth.
Texas Coll. of Arts and Ind.; Kingsville (1925).....	E. H. Poteet.....	1,557 C	State
Texas Southern Univ.; Houston (1947).....	R. O. Lanier.....	2,158 C	State
Texas St. Coll. for Women; Denton (1901).....	J. A. Guinn.....	1,800 F	State
Texas Tech. Coll.; Lubbock (1923).....	E. N. Jones.....	4,554 C	State
Texas Wesleyan Coll.; Fort Worth (1891).....	Law Sone.....	879 C	Meth.
Texas Western Coll.; El Paso (1913).....	W. H. Elkins.....	2,169 C	State
Thiel Coll.; Greenville, Pa. (1866).....	Frederic Irvin.....	416 C	Luth.
Toledo, Univ. of; Toledo, Ohio (1872).....	A. S. Knowles.....	2,304 C	City
Tougaloo Coll.; Tougaloo, Miss. (1869).....	H. C. Warren.....	262 C	Cong.
Transylvania Coll.; Lexington, Ky. (1780).....	F. A. Rose.....	226 C	D. of C.
Trinity Coll.; Hartford, Conn. (1823).....	A. H. Hughes (acting).....	885 M	Priv.
Trinity Coll.; Washington, D. C. (1897).....	Sister Catherine Dorothea.....	485 F	Cath.
Trinity Univ.; San Antonio, Texas (1869).....	J. W. Laurie.....	1,166 C	Presb.
Tufts Coll.; Medford, Mass. (1852).....	Leonard Carmichael.....	3,356 C	Priv.
Tulane Univ.; New Orleans, La. (1834).....	R. C. Harris.....	4,500 C ¹⁰	Priv.
Tulsa, Univ. of; Tulsa, Okla. (1894).....	C. I. Pontius.....	4,030 C	Priv.
Tusculum Coll.; Greeneville, Tenn. (1794).....	R. C. Rankin.....	160 C	Priv.
Tuskegee Inst.; Tuskegee Inst., Ala. (1881).....	F. D. Patterson.....	1,927 C	Priv.
Union Coll.; Barbourville, Ky. (1879).....	Conway Boatman.....	328 C	Meth.
Union Coll.; Lincoln, Nebr. (1891).....	H. C. Hartman.....	788 C	Advent.
Union Coll. & Univ.; Schenectady & Albany, N. Y. (1795).....	Carter Davidson.....	932 M	Priv.
Union Univ.; Jackson, Tenn. (1834).....	Warren F. Jones.....	540 C	Bapt.
U. S. Coast Guard Academy; New London, Conn. (1876).....	Rear Adm. A. G. Hall.....	569 M	Govt.
U. S. Merchant Marine Academy; Kings Pt., N. Y. (1938).....	Rear Adm. Gordon McLintock.....	800 M	Govt.
U. S. Military Academy; West Point, N. Y. (1802).....	Maj. Gen. F. A. Irving.....	2,293 M	Govt.
U. S. Naval Academy; Annapolis, Md. (1845).....	Vice Adm. H. W. Hill.....	3,569 M	Govt.
U. S. Naval Postgrad. School; Monterey, Calif. (1909) ¹²	Rear Adm. E. E. Herrmann.....	369 M	Govt.
Upper Iowa Univ.; Fayette, Iowa (1857).....	W. C. Mongold.....	225 C	Priv.
Upsala Coll.; East Orange, N. J. (1893).....	E. B. Lawson.....	1,860 C	Luth.
Ursinus Coll.; Collegeville, Penna. (1869).....	N. E. McClure.....	693 C	Ev. & Ref.
Ursuline Coll.; Louisville, Ky. (1938).....	Mother M. Columba.....	240 F	Cath.
Ursuline Coll. for Women; Cleveland, Ohio (1871).....	Mother M. Celestine.....	198 F	Cath.
Utah, Univ. of; Salt Lake City (1850).....	A. R. Olpin.....	6,252 C	State
Utah St. Ag. Coll.; Logan (1888).....	L. L. Madsen.....	2,962 C	State
Valdosta St. Coll.; Valdosta, Ga. (1906).....	J. R. Thaxton.....	381 C	State
Valparaiso Univ.; Valparaiso, Ind. (1859).....	O. P. Kvetzmann.....	1,874 C	Luth.
Vanderbilt Univ.; Nashville, Tenn. (1872)*.....	Harvie Branscomb.....	3,161 C	Priv.
Vassar Coll.; Poughkeepsie, N. Y. (1861).....	Sarah G. Blanding.....	1,397 F	Priv.
Vermont, Univ. of; Burlington (1791).....	C. B. Borgmann.....	2,644 C	State & Priv.
Villa Maria Coll.; Erie, Penna. (1925)*.....	Mother Aurelia.....	285 F	Cath.
Villanova Coll.; Villanova, Penna. (1842).....	Rev. F. X. N. McGuire.....	2,014 M	Priv.
Virginia, Univ. of; Charlottesville (1819).....	C. W. Darden, Jr.....	3,771 M†	State
Virginia Military Inst., Lexington, Va. (1839).....	William H. Milton, Jr.....	934 M	State
Virginia Polytechnic Inst.; Blacksburg (1872).....	W. S. Newman.....	2,825 C	State
Virginia St. Coll.; Petersburg, Va. (1882).....	R. P. Daniel.....	1,425 C	State
Virginia Union Univ.; Richmond (1867).....	J. M. Ellison.....	873 C	Bapt.
Wabash Coll.; Crawfordsville, Ind. (1832).....	F. H. Sparks.....	474 M	Priv.
Wagner Lutheran Coll.; Staten Island, N. Y. (1883).....	D. M. Delo.....	808 C	Luth.
Wake Forest Coll.; Wake Forest, N. C. (1834).....	H. W. Tribble.....	1,615 C	Bapt.
Walla Walla Coll.; College Place, Wash. (1892).....	G. W. Bowers.....	678 C	Advent.
Warburg Coll.; Waverly, Iowa (1852).....	C. H. Becker.....	560 C	Luth.
Washburn Univ.; Topeka, Kansas (1865).....	B. S. Stoffer.....	1,194 C	City
Washington, St. Coll. of; Pullman (1890).....	C. C. French.....	4,550 C	State
Washington, Univ. of; Seattle (1861).....	Henry Schmitz.....	11,749 C	State
Washington & Jefferson Coll.; Washington, Penna. (1780).....	B. C. Patterson.....	484 M	Priv.
Washington & Lee Univ.; Lexington, Va. (1749).....	F. P. Gaines.....	1,074 M	Priv.
Washington Coll.; Chestertown, Md. (1782).....	D. Z. Gibson.....	340 C	Priv.
Washington Missionary Coll.; Takoma Park, Md. (1904).....	W. H. Shephard.....	649 C	Advent.
Washington Univ.; St. Louis, Mo. (1853).....	Arthur Holly Compton.....	1,161 C	Priv.
Wayne Univ.; Detroit, Mich. (1868).....	C. B. Hilberry.....	6,909 C	City
Waynesburg Coll.; Waynesburg, Penna. (1849).....	P. R. Stewart.....	460 C	Presb.
Webb Inst. of Naval Arch.; Glen Cove, N. Y. (1829).....	Rear Adm F. E. Haeberle... ..	68 M	Priv.

Institution, location and (date founded)	Chief executive	No. of students	Control
Wellesley Coll.; Wellesley, Mass. (1870)	Margaret Clapp	1,739 F	Priv.
Wells Coll.; Aurora, N. Y. (1868)	L. J. Long	305 F	Priv.
Wesleyan Coll.; Macon, Ga. (1836)	W. F. Quillian	500 F	Meth.
Wesleyan Univ.; Middletown, Conn. (1831)	V. L. Butterfield	730 M	Priv.
West Liberty St. Coll.; West Liberty, W. Va. (1837)	P. N. Elbin	381 C	State
West Texas St. Coll.; Canyon, Texas (1910)*	J. P. Cornette	1,980 C	State
West Virginia St. Coll.; Institute, W. Va. (1891)	J. W. Davis	1,038 C	State
West Virginia Univ.; Morgantown, W. Va. (1867)	Irvin Stewart	4,024 C	State
West Virginia Wesleyan Coll.; Buckhannon, W. Va. (1890)	W. J. Scarborough	517 C	Meth.
Western Carolina Teach. Coll.; Cullowhee, N. C. (1839)	Paul A. Reid	469 C	State
Western Coll. for Women; Oxford, Ohio (1853)	E. H. Kase, Jr.	245 F	Priv.
Western Illinois St. Coll.; Macomb (1899)	F. A. Beu	1,355 C	State
Western Kentucky St. Coll.; Bowling Green, Ky. (1906)	P. L. Garrett	1,368 C	State
Western Maryland Coll.; Westminster, Md. (1867)	L. S. Ensor	673 C	Priv.
Western Michigan Coll. of Ed.; Kalamazoo (1903)	P. V. Sangren	3,700 C	State
Western Montana Coll. of Ed.; Dillon, Mont. (1897)	Rush Jordan	191 C	State
Western Reserve Univ.; Cleveland, Ohio (1883)	John S. Millis	3,451 C	Priv.
Western St. Coll. of Colorado; Gunnison, Colo. (1901)	P. P. Mickelson	543 C	State
Western Washington Coll. of Ed.; Bellingham, Wash. (1899)	W. W. Haggard	1,053 C	State
Westminster Coll.; Fulton, Mo. (1851)	W. W. Hall	289 M	Presb.
Westminster Coll.; New Wilmington, Penna. (1852)	Rev. W. W. Orr	802 C	Presb.
Westminster Coll.; Salt Lake City, Utah (1875)	J. Richard Palmer	193 C	Priv.
Wheaton Coll.; Norton, Mass. (1834)	A. H. Meneely	530 F	Priv.
Wheaton Coll.; Wheaton, Ill. (1860)	V. R. Edman	1,602 C	Priv.
Wheelock Coll.; Boston, Mass. (1889)	Winifred E. Bain	365 F	Priv.
Whitman Coll.; Walla Walla, Wash. (1859)	C. C. Maxey	634 C	Priv.
Whittier Coll.; Whittier, Calif. (1901)	P. S. Smith	960 C	Priv.
Whitworth Coll.; Spokane, Wash. (1890)	F. F. Warren	642 C	Presb.
Wichita, Municipal Univ. of; Wichita, Kansas (1896)	H. F. Corbin	2,658 C	City
Wiley Coll.; Marshall, Texas (1873)	J. S. Scott, Sr.	624 C	Meth.
Wilkes Coll.; Wilkes-Barre, Penna. (1933)	E. S. Farley	516 C	Priv.
Willamette Univ.; Salem, Ore. (1842)	G. H. Smith	1,013 C	Meth.
William and Mary, Coll. of; Williamsburg, Va. (1693)	A. D. Chandler	1,528 C	State
William Jewell Coll.; Liberty, Mo. (1849)	W. P. Binns	598 C	Bapt.
Williams Coll.; Williamstown, Mass. (1793)	J. P. Baxter, 3rd	1,036 M	Priv.
Wilmington Coll.; Wilmington, Ohio (1870)	S. D. Marble	415 C	Friends
Wilson Coll.; Chambersburg, Penna. (1869)	P. S. Havens	336 F	Presb.
Wilson Teach. Coll.; Washington, D. C. (1873)	W. E. Hager	501 C	City
Winthrop College; Rock Hill, S. C. (1886)	H. R. Sims	1,063 F	State
Wisconsin, Univ. of; Madison (1848)	E. B. Fred	13,070 C	State
Wisconsin St. Coll.; Eau Claire (1916)	W. R. Davies	669 C	State
Wisconsin St. Coll.; La Crosse (1909)	R. S. Mitchell	969 C	State
Wisconsin St. Coll.; Milwaukee (1880)	J. M. Klatsche	1,598 C	State
Wisconsin St. Coll.; Oshkosh (1871)	F. R. Polk	625 C	State
Wisconsin St. Coll.; Platteville (1866)	C. O. Newlun	495 C	State
Wisconsin St. Coll.; River Falls (1874)	E. H. Kleinpell	599 C	State
Wisconsin St. Coll.; Stevens Point (1894)	W. C. Hanson	640 C	State
Wisconsin St. Coll.; Superior (1893)	J. D. Hill	696 C	State
Wisconsin St. Coll.; Whitewater (1868)	R. C. Williams	390 C	State
Wittenberg Coll.; Springfield, Ohio (1845)	C. C. Stoughton	864 C	Luth.
Wofford Coll.; Spartanburg, S. C. (1854)	F. P. Gaines, Jr.	548 M	Meth.
Woodstock College; Woodstock, Md. (1869)	Rev. Joseph F. Murphy	206 M	Cath.
Wooster, Coll. of; Wooster, Ohio (1866)	H. F. Lowry	1,088 C	Presb.
Worcester Polytechnic Inst.; Worcester, Mass. (1865)	W. T. Cluverius	675 M	Priv.
Wyoming, Univ. of; Laramie (1837)	G. D. Humphrey	1,983 C	State
Xavier Univ.; Cincinnati, Ohio (1831)	J. F. Maguire	2,907 C	Cath.
Xavier Univ.; New Orleans, La. (1925)	Mother M. Agatha	890 C	Cath.
Yale Univ.; New Haven, Conn. (1701)	A. W. Griswold	7,211 M†	Priv.
Yankton Coll.; Yankton, S. D. (1831)	J. C. Graham	250 C	Cong.
Yeshiva University; New York, N. Y. (1837)	Dr. Samuel Belkin	2,000 M	Priv.
Youngstown Coll.; Youngstown, Ohio (1908)	H. W. Jones	3,033 C	Priv.

¹ Graduate school only; for undergraduate information, see constituent colleges: Clark College, Morehouse College and Spelman College. ² Pembroke College is the constituent school for women. ³ Other campuses at Davis, La Jolla, Los Angeles, Mt. Hamilton, Riverside, Santa Barbara and San Francisco. ⁴ Graduate school only; see also associated colleges: Pomona College, Scripps College and Claremont Men's College. ⁵ Columbia College is for men only; Barnard College is for women only. ⁶ Fordham College is for men only. ⁷ As normal school in 1912; accredited as liberal-arts college in 1939. ⁸ Rutgers College is for men only; New Jersey College for Women is for women only; Newark College is coeducational. ⁹ Includes Hobart College (1822) for men and William Smith College (1908) for women. ¹⁰ Newcomb College is the constituent school for women. ¹¹ Affiliated with Harvard University. ¹² Moved from Annapolis, Md., in 1951.

English Language Daily and Sunday U. S. Newspapers

(as of Sept. 30, 1951)

Source: Editor & Publisher.

State		Morning papers & circulation	Evening papers & circulation	Total M & E & circulation		Sunday papers & circulation
Alabama.....	3	174,897	15 387,463	18 562,360	13	487,800
Arizona.....	4	89,719	9 95,442	13 185,161	4	128,855
Arkansas.....	5	132,266	28 203,543	33 335,809	8	275,616
California.....	19	1,444,324	98 2,586,575	117 4,030,899	23	3,234,490
Colorado.....	3	164,355	23 361,741	26 526,096	8	598,372
Connecticut.....	6	158,950	21 492,419	27 651,369	7	417,386
Delaware.....	1	22,141	1 62,215	2 84,356	1	20,138
District of Columbia.....	2	325,849	3 501,344	5 827,193	3	753,675
Florida.....	9	563,911	27 434,997	36 998,908	24	835,631
Georgia.....	5	311,074	24 461,813	29 772,887	10	695,341
Idaho.....	4	59,836	11 71,629	15 131,465	5	92,628
Illinois.....	9	1,446,626	78 2,323,790	87 3,770,416	18	3,499,366
Indiana.....	12	421,400	78 1,101,201	90 1,522,601	17	877,681
Iowa.....	4	300,474	40 633,407	44 933,881	7	794,558
Kansas.....	4	177,383	51 473,402	55 650,785	13	439,843
Kentucky.....	8	273,849	25 387,760	33 661,609	15	492,393
Louisiana.....	5	280,099	15 372,444	20 652,543	10	563,869
Maine.....	5	173,735	5 76,626	10 250,361	3	175,706
Maryland.....	4	207,455	8 490,027	12 697,482	3	662,539
Massachusetts.....	7	1,094,604	46 1,483,698	53 2,578,302	11	1,822,001
Michigan.....	2	505,082	52 1,782,404	54 2,287,486	12	2,063,677
Minnesota.....	4	334,420	26 643,866	30 978,286	5	854,580
Mississippi.....	5	67,035	16 168,115	21 235,150	10	158,651
Missouri.....	9	762,522	49 1,050,591	58 1,813,113	12	1,349,162
Montana.....	5	86,539	12 62,745	17 149,284	9	134,057
Nebraska.....	4	174,487	17 281,413	21 455,900	6	338,224
Nevada.....	2	19,445	6 36,892	8 56,337	2	28,524
New Hampshire.....	1	23,305	8 82,416	9 105,721	1	30,207
New Jersey.....	6	310,658	21 798,654	27 1,109,312	9	652,154
New Mexico.....	1	31,223	14 95,080	15 126,303	8	85,604
New York.....	24	4,862,920	74 3,657,350	98 8,520,270	20	10,283,272
North Carolina.....	7	463,416	37 460,832	44 924,248	14	600,959
North Dakota.....	3	55,440	9 86,756	12 142,196	2	80,475
Ohio.....	9	764,161	91 2,449,671	100 3,213,832	19	1,972,016
Oklahoma.....	9	281,208	44 402,793	53 684,001	41	640,030
Oregon.....	4	248,758	18 337,188	22 585,946	7	554,351
Pennsylvania.....	28	1,370,664	101 2,654,721	129 4,025,385	15	3,280,458
Rhode Island.....	1	45,821	6 228,911	7 274,732	2	182,344
South Carolina.....	7	260,186	9 133,646	16 393,832	6	284,436
South Dakota.....	1	2,689	11 145,198	12 147,887	6	104,970
Tennessee.....	8	460,123	22 499,677	30 959,800	12	767,777
Texas.....	24	980,315	89 1,470,303	113 2,450,618	77	2,125,721
Utah.....	1	92,365	5 173,032	6 265,397	4	254,402
Vermont.....	2	46,602	8 43,602	10 90,204	1	12,587
Virginia.....	10	353,968	23 388,161	33 742,129	13	511,193
Washington.....	6	299,299	19 572,279	25 871,578	9	780,098
West Virginia.....	9	240,231	21 260,732	30 500,963	9	386,327
Wisconsin.....	3	231,075	36 794,282	39 1,025,357	6	866,589
Wyoming.....	5	25,621	4 32,567	9 58,188	3	28,625
Total U. S.....	319	21,222,525	1,454 32,795,413	1,773 54,017,938	543	46,279,358
Total U. S., Oct. 1, 1950.....	322	21,266,126	1,450 32,562,946	1,772 53,829,072	549	46,582,348
Total U. S., Oct. 1, 1949.....	329	21,004,650	1,451 31,840,901	1,780 52,845,551	546	46,398,968
Total U. S., Oct. 1, 1948.....	328	21,081,905	1,453 31,203,392	1,781 52,285,297	530	46,308,081
Total U. S., Oct. 1, 1947.....	328	20,762,317	1,441 30,910,959	1,769 51,673,276	511	45,151,319
Total U. S., Oct. 1, 1946.....	334	20,545,908	1,429 30,381,597	1,763 50,927,505	497	43,665,364
Total U. S., Oct. 1, 1945.....	330	19,239,913	1,419 29,144,275	1,749 48,384,188	485	39,860,036

Leading Daily U. S. Newspapers

Source: A.B.C. Publishers' statements for 6-month period ending March 31, 1952.

(NOTE: Where two or more newspapers are listed under a city, the order is according to size of total daily circulation.)

City and newspaper	Net Paid Circulation		
	Morning ¹	Evening ¹	Sunday
Akron (Ohio): BEACON JOURNAL.....		149,998	157,687
Albany (N. Y.): TIMES-UNION.....	58,399		115,724
Atlanta: CONSTITUTION (M); JOURNAL (E); JOURNAL & CONSTITUTION (S)	171,548	252,138	471,886
Baltimore: SUN.....	175,669	198,267	310,899
NEWS-POST (E); AMERICAN (S).....		216,997	329,345
Birmingham: POST-HERALD (M); NEWS (E & S).....	82,817	173,694	209,097
Boston: RECORD (M); AMERICAN (E); ADVERTISER (S).....	362,168 ²	179,662 ²	614,683
HERALD (M & S); TRAVELER (E).....	128,799 ²	209,400 ²	282,719
POST.....	294,859 ²		252,207
GLOBE.....	121,537 ²	155,477 ²	390,162
CHRISTIAN SCIENCE MONITOR.....		172,699	
Buffalo: NEWS.....		288,672	
COURIER-EXPRESS.....	143,774		300,399
Charlotte (N. C.): OBSERVER.....	138,696		146,919
Chicago: TRIBUNE.....	838,285		1,503,250
SUN-TIMES.....	550,293 ^{2,3}		607,199
NEWS.....		546,290 ²	
HERALD-AMERICAN.....		535,316 ²	903,756
Cincinnati: ENQUIRER.....	181,398		270,384
POST.....		155,376	
TIMES-STAR.....		149,960	
Cleveland: PRESS.....		313,752	
PLAIN DEALER.....	298,888		522,829
NEWS.....		148,117	
Columbus: DISPATCH.....		159,622	225,595
CITIZEN.....		100,445	120,396
Dallas: NEWS.....	172,305		182,547
TIMES HERALD.....		141,100	140,808
Dayton (Ohio): NEWS.....		135,014	166,681
Denver: POST.....		218,051	361,730
ROCKY MOUNTAIN NEWS.....	142,787		154,468
Des Moines: REGISTER (M & S); TRIBUNE (E).....	227,789	148,869	543,674
Detroit: NEWS.....		467,066	577,826
TIMES.....		430,567	596,479
FREE PRESS.....	427,449		476,189
Fort Worth: STAR-TELEGRAM.....	116,875	125,197	221,231
Grand Rapids (Mich.): PRESS.....		110,122	
Hartford (Conn.): TIMES.....		103,308	
COURANT.....	72,007		117,159
Hempstead (N. Y.): NEWSDAY.....		158,548	
Honolulu: ADVERTISER.....	48,695		61,087
Houston: CHRONICLE.....		184,828	204,856
POST.....	173,342		190,786
PRESS.....		122,606	
Indianapolis: STAR.....	196,567		282,106
NEWS.....		159,603	
TIMES.....		100,560	99,129
Jacksonville (Fla.): TIMES-UNION.....	132,002		142,147
Kansas City (Mo.): TIMES (M); STAR (E & S).....	353,202	361,226	378,881
Knoxville (Tenn.): NEWS-SENTINEL.....		104,687	109,008
Los Angeles: TIMES.....	396,112		779,155
EXAMINER.....	323,936		729,354
HERALD & EXPRESS.....		305,056 ²	
MIRROR.....		202,325 ²	
DAILY NEWS.....		190,345 ²	
Louisville: COURIER-JOURNAL (M & S); TIMES (E).....	200,422	170,712	300,970
Memphis: COMMERCIAL APPEAL (M & S); PRESS-SCIMITAR (E).....	195,880	128,626	247,035
Miami: HERALD.....	220,130		253,616
NEWS.....		116,563	98,717

¹ Unless otherwise indicated, figure is an average of the Monday-through-Saturday circulation. ² Figure is an average of the Monday-through-Friday circulation; i.e., Saturday circulation, if any, has not been used in making the average. ³ Published all day.

City and newspaper	Net Paid Circulation		
	Morning ¹	Evening ¹	Sunday
Milwaukee: JOURNAL		333,741	453,823
SENTINEL	174,588		248,577
Minneapolis: STAR (E); TRIBUNE (M & S)	194,638	295,839	620,684
Nashville: TENNESSEAN	107,490		170,560
New Orleans: TIMES-PICAYUNE (M); STATES (E); TIMES-PICAYUNE-STATES (S)	176,288	102,364 ^a	281,948
ITEM		107,536 ^a	113,072
New York: NEWS	2,161,187 ^a		4,062,769
MIRROR	920,838 ^a		1,822,737
JOURNAL & AMERICAN		689,981 ²	1,043,582
WORLD-TELEGRAM & SUN		566,923 ^a	
TIMES	507,397 ^a		1,151,626
POST		399,081 ²	278,849
HERALD TRIBUNE	347,093 ^a		596,775
LONG ISLAND PRESS		160,249	196,724
BROOKLYN EAGLE		128,581 ^a	159,087
WALL STREET JOURNAL (Eastern Edition)	110,820		
JEWISH DAILY FORWARD	99,863		111,892
Newark (N. J.): NEWS		263,500 ^a	260,721
STAR-LEDGER	179,934		269,691
Norfolk: VIRGINIAN-PILOT (M & S); LEDGER-DISPATCH (E)	97,008	64,067	107,561
Oakland (Calif.): TRIBUNE		196,505	208,264
Oklahoma City: OKLAHOMAN (M & S); TIMES (E)	150,263	113,382	261,155
Omaha: WORLD-HERALD	133,085	118,454	257,164
Philadelphia: BULLETIN		705,688 ^a	696,111
INQUIRER	629,516 ^a		1,133,753
NEWS		130,343	
Phoenix: REPUBLIC (M & S); GAZETTE (E)	70,099	51,555	100,447
Pittsburgh: PRESS		288,798	516,147
POST-GAZETTE	268,920		
SUN-TELEGRAPH		197,239	540,625
Portland (Oreg.): OREGONIAN	223,688		285,112
JOURNAL		192,195 ^a	212,174
Providence (R. I.): BULLETIN		144,241	
JOURNAL	45,447		179,193
Raleigh (N. C.): NEWS & OBSERVER	114,741		120,613
Richmond (Va.): TIMES-DISPATCH (M & S); NEWS-LEADER (E)	125,092	101,636	171,980
Rochester (N. Y.): DEMOCRAT & CHRONICLE (M & S); TIMES-UNION (E)	113,476	114,453	171,352
St. Louis: POST-DISPATCH		400,743 ^a	459,001
GLOBE-DEMOCRAT	300,337 ^a		369,910
St. Paul: DISPATCH (E); PIONEER PRESS (M & S)	93,773	119,816	163,111
Salt Lake City: TRIBUNE (M & S); TELEGRAM (E)	93,377	36,744	128,418
Sacramento: BEE		126,584	
San Antonio: LIGHT		83,081 ^a	118,237
EXPRESS	77,173 ^a		131,432
San Diego: EVENING TRIBUNE		100,201	
UNION	59,875		131,425
San Francisco: EXAMINER	221,670		570,031
CALL-BULLETIN		156,142 ^a	
CHRONICLE	154,372		271,096
NEWS		125,354	
San Juan (P. R.): EL MUNDO	56,427		75,257
Seattle: TIMES		212,439 ^a	244,424
POST-INTELLIGENCER	179,364		264,194
South Bend (Ind.): TRIBUNE		105,474	106,171
Spokane (Wash.): SPOKESMAN-REVIEW	83,865		137,757
Syracuse (N. Y.): HERALD-JOURNAL (E); HERALD-AMERICAN (S)		130,922	223,139
POST-STANDARD	79,422		100,171
Tampa (Fla.): TRIBUNE	114,754		127,988
Toledo: BLADE		190,748	164,520
Tulsa (Okla.): WORLD (M & S); TRIBUNE (E)	78,690	69,504	141,824
Washington (D. C.): TIMES HERALD	259,227 ^a		304,545
EVENING STAR; SUNDAY STAR		226,101 ²	261,386
POST	191,234 ^a		201,949
NEWS		141,872 ^a	
Wichita (Kans.): BEACON		103,476	135,089
Worcester (Mass.): TELEGRAM (M & S); GAZETTE (E)	51,880	102,532	106,095
Youngstown (Ohio): VINDICATOR & TELEGRAM		93,209	134,631

The Leading Magazines of the United States

Source: A.B.C. Publishers' Statements for period ending June 30, 1952.

Magazine or Magazine group	Circulation*	Magazine or Magazine group	Circulation*
American Comics Group	3,407,497	Macfadden Men's Group	1,331,849
American Home	2,951,239	Marvel Comic Group	15,274,166
American Legion Magazine	2,777,534	Modern Screen	1,239,712
American Magazine	2,564,910	National Comics Group	7,611,038
American Romance Group	1,323,810	National Geographic Magazine	2,065,774
Archie Comic Group	3,516,226	Parents' Magazine	1,303,818
Better Homes and Gardens	3,600,290	Pathfinder	1,187,087
Collier's, The National Weekly	3,119,753	Photoplay	1,318,439
Coronet	2,762,830	Popular Mechanics Magazine	1,289,124
Cosmopolitan	1,865,869	Popular Science Monthly	1,260,025
Dell Modern Group	2,714,793	Quality Comic Group	1,754,022
Family Circle	3,535,164	Quick	1,265,890
Fawcett Comics Group	3,623,741	Reader's Digest	†
Fawcett True Confessions, Motion Picture and Television Magazine	2,621,730	Redbook Magazine	1,980,153
Good Housekeeping	3,200,690	Saturday Evening Post	4,224,339
Harvey Comics Group	5,591,145	Standard Comics Group	3,651,780
Hillman Women's Group	1,156,508	Thrilling Fiction Group	1,240,059
Household	2,201,100	Time	1,706,593
Ideal Women's Group	1,376,665	Today's Woman	1,201,670
Ladies' Home Journal	4,575,311	True	1,775,775
Lev Gleason Comic Group	2,354,027	True Confessions	1,702,830
Life	5,339,565	True Story	2,220,597
Look	3,301,762	True Story Women's Group	5,605,510
McCall's Magazine	4,237,758	Woman's Day	3,839,758
		Woman's Home Companion	4,258,586
		Workbasket	1,261,555
		Young Romance Group	2,260,645

* Net paid circulation. † The publisher's figure is about 9,000,000; since the magazine does not take advertising, A.B.C. does not publish the circulation. NOTE: Does not include farm magazines.

Radio Stations and Networks

Source: National Association of Radio and Television Broadcasters.

Major networks	Standard Broadcast stations (July 1, 1952)	
	Owned and operated	Affiliated
ABC—American Broadcasting Company ..	5	334
CBS—Columbia Broadcasting System	7	197
MBS—Mutual Broadcasting System	0	568
NBC—National Broadcasting Company	6	191

No. of stations* (Aug. 1, 1952)	Permits for construction		
	Operating		Total
Standard Broadcast	2,356	95	2,451
Television	109†	21	130
FM (Frequency Modulation)	627‡	18	645

* Including territories and possessions. † Includes 96 licensed and 13 CP's operating on special temporary authority. ‡ Includes 43 CP's operating on special temporary authority.

Birthstones

Source: Jewelry Industry Council.

January	Garnet	July	Ruby
February	Amethyst	August	Peridot or Sardonyx
March	Aquamarine or Bloodstone	September	Sapphire
April	Diamond	October	Opal or Tourmaline
May	Emerald	November	Topaz
June	Pearl, Alexandrite or Moonstone	December	Turquoise or Zircon

Patents

A patent, in the most general sense, is a document issued by a government, conferring some special right or privilege. The term is now restricted mainly to patents for inventions; occasionally, land patents.

The grant of a patent for an invention gives the inventor the privilege, for a limited period of time, of excluding others from practicing a certain art or from making, using, or selling a certain article. However, it does not give him the right to make, use, or sell his own invention if it is an improvement on some unexpired patent whose claims are infringed thereby.

In the U. S., the law provides that a patent may be granted, for a term of 17 years, to any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, as well as any new and useful improvements thereof. A patent may also be granted to any person who has invented or discovered and asexually reproduced any new and distinct variety of plant (other than a tuber-propagated one) or has invented any new, original, and ornamental design for an article of manufacture.

A patent is granted only upon a regularly filed application, complete in all

respects; upon payment of the fees; and upon determination that the disclosure is complete and that the invention is new and useful. The disclosure must be of such nature as to enable others to reproduce the invention.

A complete application, which must be addressed to the Commissioner of Patents, Washington, D. C., consists of a petition, specification and claims, oath, drawing (whenever the nature of the case admits of it), and a filing fee of \$30 for cases having 20 claims or less. An additional fee of \$1 per claim is required for cases having more than 20 claims. The filing fee is not returned to the applicant if the patent is refused. If the patent is allowed, another fee of \$30 (and \$1 each for claims allowed in excess of 20) is required before the patent is issued. The fees for design patents vary.

Applications are considered strictly in the order in which they are received. Patents are not granted for printed matter, for methods of doing business, or for devices for which claims contrary to natural laws are made. Applications for a perpetual-motion machine have been made from time to time, but until a working model is presented that actually fulfills the claim, no patent will be issued.

Trade-Marks

A trade-mark may be defined as a word, letter, device, or symbol, as well as some combination of these, which is used in connection with merchandise and which points distinctly to the origin or ownership of the article to which it is applied.

Certificates of registration of trade-marks are issued under the seal of the Patent Office and may be registered by the owner if he is engaged in interstate or foreign commerce, since any federal jurisdiction over trade-marks arises under the commerce clause of the Constitution. Trade-marks may be registered by foreign owners who comply with our law, as well as by citizens of foreign countries with which the U. S. has treaties relating to trade-marks. American citizens may register trade-marks in foreign countries by

complying with the laws of those countries. The right to registration and protection of trade-marks in many foreign countries is guaranteed by treaties.

General jurisdiction in trade-mark cases is given to the federal courts. Decisions of examiners on applications or oppositions are subject to appeal to the Commissioner of Patents, and from him to the U. S. Court of Customs and Patent Appeals. Before adopting a trade-mark, a person should make a search of prior marks in order to avoid infringing unwittingly upon them.

The duration of a trade-mark registration is 20 years, but it may be renewed indefinitely for 20-year periods, provided the trade-mark is still in use at the time of expiration.

Television Stations and Sets in U. S.

Source: Tele-Tech (Caldwell-Clements, Inc.).

States	Stations, 1952	Sets		States	Stations, 1952	Sets	
		1951	1952			1951	1952
New England.....	4	942,000	1,255,000	West North Central....	9	611,500	974,000
Middle Atlantic.....	28	4,530,000	6,133,000	West South Central....	8	390,500	590,000
South Atlantic.....	9	372,600	1,077,000	Mountain.....	4	69,500	119,000
East North Central....	27	2,750,000	4,072,000	Pacific.....	12	1,156,500	1,702,000
East South Central....	6	194,000	507,000	Total U. S.....	107	11,600,600	16,429,000

NOTE: Data as of January 1 of each year.

Copyrights

(Covering amendments of the law through June 3, 1949)

A copyright, international or national, is the right obtained by authors, musicians, and artists of all mediums to prevent the reproduction of their works without their consent. The U. S. Constitution (Article I, Section 8) empowers Congress "to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The possession of a copyright prevents reproduction by writing, printing, copying, or imitation of the copyrighted article. Copyright also includes the right to control public performance of dramatic and musical works, to control mechanical reproductions of musical compositions, and to translate and dramatize literary works. Copyright protection extends to such works as books and pamphlets; periodicals and contributions to periodicals; lectures, sermons, and monologues; dramas and dramatical musical compositions; musical compositions; maps; works of art or models and designs for works of art; reproductions of a work of art; drawings or plastic works of scientific or technical character; photographs, prints, and pictorial illustrations; commercial prints and labels; and motion pictures.

Copyright term endures 28 years from date of registration in the Copyright Office for unpublished material and from the date of publication for published works. The copyright may be renewed for an additional period of 28 years, provided application for such renewal is made within one year prior to the date of expiration of the original term. The copyright of a book or similar publication is secured by publication of such work after printing on the title page, or the page immediately following, the required copyright notice. This notice consists of the word *Copyright* or the abbreviation *Copr.*, the year of publication, and the name of the copyright owner. It is important to bear in mind that copyright comes into being at the time of first publication if

this required notice appears on the work. If publication occurs without this notice, the work falls into the public domain, and the Copyright Office cannot register the claim. In short, the Copyright Office does not grant copyrights; the obtaining of such protection depends on whether or not the claimant follows the statutory formalities at the time of publication.

The law requires that, promptly after the work has been published, two copies thereof must be forwarded to the Register of Copyrights, Library of Congress, Washington 25, D. C. These copies should be accompanied by the proper application form and the statutory fee of \$4. If the work is a commercial print or label used in connection with the sale or advertisement of an article of merchandise, the fee is \$6.

Effective June 3, 1949, the term of ad interim protection for books and periodicals in the English language first published abroad was extended from six months to five years. Such works of foreign origin may be imported into the U. S. up to a total of 1,500 copies after ad interim registration has been obtained. The above amendment to the law also affords to the foreign author or publishers an option of obtaining registration without payment of the usual statutory fee if an extra copy of the work, accompanied by a catalogue card, is submitted to the Copyright Office within six months of the date of first publication abroad.

Presidential proclamations and treaties cover copyright relations of the U. S. with most of the important countries in the world.

Copies of application forms may be obtained from the Copyright Office free upon request. The Office also publishes, in Bulletin 14, the full U. S. copyright law. This bulletin can be purchased for fifteen cents upon application to the Register of Copyrights.

Radio and Phonograph Statistics for U. S.

Source: Tele-Tech (Caldwell-Clements, Inc.).

Type	Number*	Type	Number*
Radios: Homes with.....	45,850,000	Turntables: 78 rpm only.....	12,400,000
Secondary sets in homes.....	30,400,000	33 rpm only.....	1,000,000
Sets in business, etc.....	6,000,000	45 rpm only.....	2,750,000
Automobile radios.....	21,000,000	78 and 33 rpm.....	300,000
Total radios.....	103,250,000	3-speed.....	5,520,000
Radio operators licensed.....	760,000	Total turntables.....	21,970,000
Amateur stations.....	99,000		

* In operation as of Jan. 1, 1952. NOTE: Radio sets in rest of world: North America (except U. S.), 8,000,000; South America, 8,000,000; Europe, 64,000,000; Asia, 13,000,000; Australia, 3,500,000; Africa, 2,500,000; total, 99,000,000. Total sets in world: 218,000,000.

The National Park System of the United States

Source: National Park Service.

The National Park System of the United States, administered by the National Park Service, a bureau of the Department of the Interior, embraces a total of 173 areas, containing approximately 21,820,000 acres in federal ownership. Started with the establishment of Yellowstone National Park in 1872, the system includes not only the most extraordinary and spectacular scenic exhibits in the United States proper and in Alaska and Hawaii but also a large number of sites distinguished for their historic or pre-historic importance or scientific interest. The number and extent of the various types of areas which comprise the system, as of June 30, 1952, are as follows:

Type of Area	Number	Federal Land (Acres)	Lands within exterior boundaries not federally owned (Acres)	Total lands within exterior boundaries (Acres)
National Parks.....	28	12,589,244.01	146,571.74	12,735,815.75
National Historical Parks.....	5	10,408.33	5,839.79	16,248.12
National Monuments.....	85	9,010,337.42	251,663.80	9,262,001.22
National Military Parks.....	11	24,338.07	2,568.69	26,906.76
National Memorial Park.....	1	62,160.93	9,020.10	71,181.03
National Battlefield Parks.....	2	3,778.65	800.00	4,578.65
National Battlefield Sites.....	6	188.33	547.65	735.98
National Historic Sites.....	11	2,922.00	2,502.01	5,424.01
National Memorials.....	9	1,564.02	58.13	1,622.15
National Cemeteries.....	10	217.01	5.00	222.01
National Parkways.....	4	75,817.12	36,959.21	112,776.33
National Capital Parks ¹	1	39,145.15	1,844.68	40,989.83
Total National Park System.....	173	21,820,121.04	458,380.80	22,278,501.84

¹ Includes Catoctin Recreational Demonstration Area being administered by National Capital Parks pending disposition.

National Parks

Name, location and year established as National Park	Area in U. S. owner- ship, acres	Outstanding characteristics
Acadia (Maine), 1919.....	28,619.50	Rugged seashore on Mt. Desert Island and adjacent mainland
Big Bend (Texas), 1944.....	692,304.70	Mountains and desert bordering the Rio Grande
Bryce Canyon (Utah), 1928.....	36,010.38	Area of grotesque eroded rocks brilliantly colored
Carlsbad Caverns (N. Mex.), 1930.....	45,846.59	One of the world's largest known caves; spectacular flight of bats daily in summer
Crater Lake (Oregon), 1902.....	160,290.33	Deep blue lake in crater of inactive volcano
Everglades (Florida), 1947.....	1,258,361.00	Sub-tropical area with abundant bird and animal life
Glacier (Montana), 1910.....	999,014.71	Rocky mountains with many glaciers and lakes
Grand Canyon (Arizona), 1919.....	645,295.91	One mile deep gorge, 4 to 18 miles wide, 217 miles long, of which 105 miles are within the park; fantastically sculptured by erosion
Grand Teton (Wyoming), 1929.....	299,580.45	Picturesque range of high mountain peaks
Great Smoky Mts. (N. C.-Tenn.), 1930.....	505,259.84	Highest mountain range east of Black Hills; luxuriant plant life
Hawaii (Territory Hawaii), 1916.....	176,456.60	Spectacular volcanic area with two active volcanoes
Hot Springs (Arkansas), 1921.....	1,019.13	47 mineral hot springs said to have therapeutic value
Isle Royale (Michigan), 1940.....	133,838.51	Largest wilderness island in Lake Superior; great moose herd
Kings Canyon (California), 1940.....	453,064.82	Huge canyons; high mountains; giant sequoias
Lassen Volcanic (California), 1916.....	133,809.28	Only recently active volcano in United States proper
Mammoth Cave (Kentucky), 1936.....	50,695.73	Vast limestone labyrinth with underground river
Mesa Verde (Colorado), 1906.....	51,017.87	Best preserved pre-historic cliff dwellings in United States
Mount McKinley (Alaska), 1917.....	1,939,319.04	Highest mountain in North America; spectacular wildlife
Mount Rainier (Washington), 1899.....	241,571.09	Greatest single-peak glacial system in United States
Olympic (Washington), 1938.....	841,111.00	Finest mountain wilderness of Pacific Northwest
Platt (Oklahoma), 1906.....	911.97	Cold mineral springs with distinctive properties
Rocky Mountain (Colorado), 1915.....	234,575.47	Section of the Rocky Mountains; 65 peaks over 10,000 feet
Sequoia (California), 1890.....	385,138.32	Groves of giant sequoias; world's largest and probably oldest living things; includes Mt. Whitney, highest mountain in U. S. proper
Shenandoah (Virginia), 1935.....	193,472.98	Tree covered mountains; scenic Skyline Drive
Wind Cave (South Dakota), 1903.....	27,825.67	Limestone caverns in Black Hills; buffalo herd
Yellowstone (Wyoming-Montana-Idaho), 1872.....	2,213,206.55	World's greatest geyser area; spectacular falls and canyon; one of world's great wildlife sanctuaries
Yosemite (California), 1890.....	757,325.51	Mountains; inspiring gorges and waterfalls; giant sequoias
Zion (Utah), 1919.....	94,241.06	Multicolored gorge in heart of southern Utah desert

National Historical Parks

Name and location	Acreage in U. S. ownership
Abraham Lincoln (Kentucky)	116.50
Chalmette (Louisiana)	69.61
Colonial (Virginia)	7,150.26
Morristown (New Jersey)	958.37
Saratoga (New York)	2,113.59

National Monuments*

Ackia Battleground (Mississippi)	49.15
Andrew Johnson (Tennessee)	16.33
Appomattox Court House (Va.)	968.25
Arches (Utah)	33,929.94
Aztec Ruins (New Mexico)	27.14
Badlands (South Dakota)	123,492.46
Bandelier (New Mexico)	27,048.89
Big Hole Battlefield (Montana)	200.00
Black Canyon of the Gunnison (Colorado)	13,176.02
Cabrillo (California)	.50
Canyon de Chelly (Arizona)	33,840.00
Capitol Reef (Utah)	33,068.74
Capulin Mountain (New Mexico)	680.42
Casa Grande (Arizona)	472.50
Castillo de San Marcos (Florida)	18.51
Castle Clinton (New York)	1.00
Castle Pinckney (South Carolina)	3.50
Cedar Breaks (Utah)	6,172.20
Chaco Canyon (New Mexico)	21,352.93
Channel Islands (California)	26,819.26
Chiricahua (Arizona)	10,529.80
Colorado (Colorado)	18,120.55
Craters of the Moon (Idaho)	48,003.86
Custer Battlefield (Montana)	765.34
Death Valley (Calif.-Nev.)	1,864,898.31
Devil Postpile (California)	798.46
Devils Tower (Wyoming)	1,193.91
Dinosaur (Utah-Colorado)	190,962.13
Effigy Mounds (Iowa)	1,000.00
El Morro (New Mexico)	880.80
Fort Frederica (Georgia)	79.30
Fort Jefferson (Florida)	47,125.00
Fort Laramie (Wyoming)	214.41
Fort Matanzas (Florida)	227.76
Fort McHenry (Maryland)	47.64
Fort Pulaski (Georgia)	5,427.39
Fort Sumter (South Carolina)	2.40
Fossil Cycad (South Dakota)	320.00
George Washington Birthplace (Virginia)	393.68
George Washington Carver (Missouri)	210.00
Gila Cliff Dwellings (N. Mex.)	160.00
Glacier Bay (Alaska)	2,297,734.10
Gran Quivira (New Mexico)	450.94
Grand Canyon (Arizona)	196,051.00
Great Sand Dunes (Colorado)	35,908.19
Homestead (Nebraska)	162.73
Hovenweep (Utah-Colorado)	410.32
Jewel Cave (South Dakota)	1,274.56
Joshua Tree (California)	465,918.57

* Holy Cross, Jackson Hole, and Wheeler National Monuments have been abolished.

National Monuments,—(cont.)

Name and location	Acreage in U. S. ownership
Katmai (Alaska)	2,697,590.00
Lava Beds (California)	46,161.99
Lehman Caves (Nevada)	640.00
Meriwether Lewis (Tennessee)	300.00
Montezuma Castle (Arizona)	783.09
Mound City Group (Ohio)	67.50
Muir Woods (California)	485.18
Natural Bridges (Utah)	2,649.70
Navajo (Arizona)	360.00
Ocmulgee (Georgia)	683.48
Old Kasaan (Alaska)	38.00
Oregon Caves (Oregon)	480.00
Organ Pipe Cactus (Arizona)	328,161.73
Perry's Victory (Ohio)	14.25
Petrified Forest (Arizona)	85,303.63
Pinnacles (California)	12,817.77
Pipe Spring (Arizona)	40.00
Pipestone (Minnesota)	115.60
Rainbow Bridge (Utah)	160.00
Saguaro (Arizona)	54,971.50
Scotts Bluff (Nebraska)	2,196.44
Shoshone Cavern (Wyoming)	212.37
Sitka (Alaska)	52.33
Statue of Liberty (New York)	10.38
Sunset Crater (Arizona)	3,040.00
Timpanogos Cave (Utah)	250.00
Tonto (Arizona)	1,120.00
Tumacacori (Arizona)	10.00
Tuzigoot (Arizona)	42.67
Verendrye (North Dakota)	253.04
Walnut Canyon (Arizona)	1,641.62
White Sands (New Mexico)	140,247.04
Whitman (Washington)	45.84
Wupatki (Arizona)	34,853.03
Yucca House (Colorado)	9.60
Zion (Utah)	33,920.75

National Military Parks

Chickamauga and Chattanooga (Georgia-Tennessee)	8,189.64
Fort Donelson (Tennessee)	102.54
Fredericksburg and Spotsylvania (Virginia)	2,420.71
Gettysburg (Pennsylvania)	2,548.57
Guilford Courthouse (N. C.)	148.83
Kings Mountain (South Carolina)	4,012.00
Moore's Creek (North Carolina)	30.00
Petersburg (Virginia)	1,502.86
Shiloh (Tennessee)	3,729.28
Stones River (Tennessee)	323.86
Vicksburg (Mississippi)	1,329.80

National Memorial Park

Theodore Roosevelt (N. Dak.)	62,160.93
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National Battlefield Parks

Kennesaw Mountain (Georgia)	3,094.21
Richmond (Virginia)	684.44

National Battlefield Sites

Antietam (Maryland)	183.33
Brices Cross Roads (Mississippi)	1.00
Cowpens (South Carolina)	1.00
Fort Necessity (Pennsylvania)	2.00

National Battlefield Sites—(cont.)

Name and location	Acreage in U. S. ownership
Tupelo (Mississippi)	1.00
White Plains (New York)	0.00

National Historic Sites

Adams Mansion (Massachusetts)	4.05
Federal Hall Memorial (New York) .....	.49
Fort Raleigh (North Carolina)	18.50
Hampton (Maryland)	43.30
Home of Franklin D. Roosevelt (New York)	33.23
Hopewell Village (Pennsylvania)	848.06
Jefferson National Expansion Memorial (Missouri)	82.58
Manassas Battlefield Park (Va.)	1,870.74
Old Philadelphia Custom House (Pennsylvania) .....	.79
Salem Maritime (Massachusetts)	8.61
San Juan ¹ (Puerto Rico)	40.00
Vanderbilt Mansion (New York)	211.65

National Memorials

DeSoto (Florida)	24.18
House Where Lincoln Died (D. C.) .....	.05
Kill Devil Hill (N. C.)	314.40
Lee Mansion (Virginia)	2.71

National Memorials—(cont.)

Name and location	Acreage in U. S. ownership
Lincoln Memorial (D. C.) ....	.61
Lincoln Museum (D. C.) ....	.18
Mount Rushmore (S. Dak.) ..	1,220.32
Thomas Jefferson (D. C.)	1.20
Washington Monument (D. C.) ..	.37

National Cemeteries²

Antietam (Maryland)	11.36
Battleground (District of Columbia)	1.03
Fort Donelson (Tennessee) ...	15.34
Fredericksburg (Virginia)	12.00
Gettysburg (Pennsylvania) ...	15.55
Poplar Grove (Virginia)	8.72
Shiloh (Tennessee)	10.25
Stones River (Tennessee)	20.09
Vicksburg (Mississippi)	119.76
Yorktown (Virginia)	2.91

National Parkways

Blue Ridge (N. C.-Va.)	54,758.75
George Washington Memorial (Va.-Md.)	2,946.29
Natchez Trace (Tenn.-Ala.-Miss.)	17,449.21
Suitland (Md.-D. C.)	662.87

National Capital Parks

National Capital Parks (D. C.-Va.-Md.) ³	39,145.15
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¹ Approximate acreage. Area not included in Park System totals since it is administered by agreement with the Department of the Army, which has basic jurisdiction. ² Arlington National Cemetery, in Virginia, is not shown because it is under the jurisdiction of the Department of the Army rather than of the National Park Service. ³ Includes 9,918.27 acres in Catoctin Recreational Demonstration Area, which is administered by the National Capital Parks pending disposition.

The National Geographic Society

The National Geographic Society, Washington, D. C., was founded in 1888 "for the increase and diffusion of geographic knowledge." In furthering this objective, the Society publishes the monthly *National Geographic* magazine. Also, through the years, the Society has prepared more than 120 large supplement maps in color.

The Society maintains a News Service department supplying, without cost, general geographic information, as well as information on the Society's expeditions and projects, to newspapers, the press associations, radio and TV stations, and news commentators. The School Service department supplies Geographic School Bulletins weekly during the school year for classroom use.

The scores of expeditions sponsored by the Society, alone or in co-operation with other organizations, have reached to both poles and from ocean depths to the stratosphere.

The Society's current (1952-53) projects include the following:

A 4-year project, begun in 1949 in conjunction with the California Institute of Technology, of photographing the heavens. A sky atlas of 1,870 photographs will be produced.

A study, begun in 1950 in conjunction with the University of Miami, of plankton in the Gulf Stream off Florida.

Cosmic-ray research, begun in 1946 in conjunction with the Bartel Research Foundation. India is the site for upper-air research in 1952-53.

A solar-eclipse expedition to Khar-tuom, Anglo-Egyptian Sudan.

Dr. Gilbert Grosvenor, editor of the *National Geographic* magazine since 1899, has been president of the National Geographic Society since 1920. Other officers are: Dr. John Oliver La Gorce, vice president and associate editor of the magazine; Thomas W. McKnew, secretary; and Robert V. Fleming, treasurer. Address: National Geographic Society, 18th and M Sts. N.W., Washington 6, D. C.

Museums of the United States

Source: Questionnaires to Museums.

NEW YORK CITY

American Academy of Arts and Letters: 633 W. 155th St., New York 32. Open: wkdys. & Sun. during exhib. 2-5 (closed Mon.). Otherwise by appt. Free.

Painting, sculpture by members of Academy and National Institute of Arts and Letters. Fall Exhibition by candidates for Art Grant. Spring Exhibition by new members and recipients of Grants. Has-sam Fund purchases.

American Museum of Natural History: Central Park W. at 79th St., New York 24. Open: wkdys. 10-5, Sun. & hldys. 1-5. Free.

Covers all branches of natural sciences except systematic botany with thorough exhibits in each field. Large habitat groups of animals. Planetarium. Library.

Brooklyn Museum: Eastern Pkwy., Brooklyn 17, N. Y. Open: wkdys. 10-5, Sun. & hldys. 1-5 (closed Xmas). Free.

European and American paintings. Egyptian collection. Art of China, Japan, India, Near East. Exhibits showing Primitive and New World cultures. American rooms. Industrial design laboratory. Art school. Library and concerts.

Cloisters: Ft. Tryon Pk., New York 33. Open: wkdys. 10-5 (closed Mon.), Sun., hldys. 1-5 (May-Sept., Sun., 1-6). Free.

Cloisters, chapel, chapter house reconstructed from parts of old European structures. Frescoes, polychromed statues, stained glass, Gothic tapestries. Branch of Metropolitan Museum of Art.

Frick Collection: 1 E. 70th St., New York 21. Open: wkdys. 10-5 (closed Mon. & mo. of Aug.), Sun. & hldys. 1-5. Free.

Paintings, watercolors, prints, drawings of 14th to 19th centuries. Italian Renaissance and French sculpture. Chinese and French porcelain. Concerts, lectures.

Hispanic Society of America (Museum & Library): Broadway bet. 155th & 156th Sts., New York 32. Museum open: wkdys. 10-4:30, Sun. 1-5 (closed Mon., July 4, Thns. Day, Xmas). Library open: wkdys. 1-4:30 (closed Sun., Mon., hldys., mo. of Aug.). Free.

Devoted to Spanish and Portuguese art, literature. Paintings, sculpture, ceramics, metalwork, furniture, textiles, manuscripts. More than 650 volumes published.

Metropolitan Museum of Art: 5th Ave. at 82nd St., New York 28. Open: wkdys. 10-5, Sun., hldys. 1-5. Free.

Extensive collection of European and American paintings, decorative arts, prints. Egyptian, Asiatic, Classical art. Musical instruments, arms and armor. American period rooms. Costumes and textiles. Library. See also Cloisters.

Museum of Modern Art: 11 W. 53rd St.,

New York 19. Open: wkdys. 12-7, Sun. & hldys. 1-7. Adm. 60c (children 20c).

Founded 1929 to aid study of modern art and its application to manufacturing and practical life. Constantly changing exhibitions of contemporary painting, sculpture, photography, architecture, industrial design, films.

Museum of Non-Objective Painting, Solomon R. Guggenheim Foundation: 1071 5th Ave., New York 28. Open: wkdys. 10-6 (closed Mon.), Sun. 12-6. Free.

Works by the masters of non-objective painting. Group loan shows. Bach and Beethoven music.

Museum of the American Indian, Heye Foundation: Broadway at 155th St., New York 32. Open: Tues.-Sat. 2-5 (closed Sun., Mon., hldys.). Free.

Archaeology and ethnology of Americas from Arctic Circle to Tierra del Fuego.

Museum of the City of New York: 5th Ave. at 104th St., New York 29. Open: wkdys. 10-5 (closed Mon.), Sun. 1-5, closed Xmas. Free.

History of New York City. Period costumes, furniture, miniature scenes, portraits, paintings, prints, manuscripts, silver, toys, fire engines, horse car. Theater and music collections.

National Academy of Design: 1083 5th Ave. (at 90th St.) New York 28. Open: wkdys. & Sun. 1-5 (during exhibitions).

Special annual exhibitions by selected organizations Oct. thru June.

New York Historical Society: Central Park W. at 77th St., New York 24. Open: wkdys. & Sun. 1-5, (Sat. 10-5, closed Mon., NY Day, July 4, Thns. Day, Xmas, month of Aug.). Free.

New York city and state historical exhibits. Early American paintings and portraits. American folk arts and crafts. Audubon watercolors of birds, John Rogers statuette groups. Library.

Roosevelt (Theodore) Museum: 28 E. 20th St., New York 3. Open: wkdys. 10-5 (closed Mon.), Sun. & hldys. 1-5 (closed Thns. Day, Xmas, NY Day). Free.

Restored birthplace of Roosevelt. Mounted lion shot by him in Africa. Photographs, letters, trophies, personal items. Extensive cartoon collection.

Whitney Museum of American Art: 10 W. 8th St., New York 11. Open: wkdys. & Sun. 1-5 (closed Mon. & June 1-Sept. 15). Free. Sculpture, paintings, watercolors, drawings, prints by American artists. Annual exhibitions of American contemporaries.

CHICAGO

Art Institute of Chicago: Michigan Ave. at Adams St., Chicago 3, Ill. Open: wkdys. 9-5, Sun. 12-5. Adm. 25c. (free Wed., Sat., Sun., hldys.).

Paintings, sculpture, prints, drawings. Oriental arts; European, American decorative arts. Thorne Miniature Rooms. Library, art school.

Chicago Academy of Sciences, Museum of Natural History: 2001 N. Clark St., Chicago 14, Ill. Open: daily 10-5. Free.

Emphasis on regional natural history. Habitat groups of existing and prehistoric animals. Study collections of North American flora and fauna.

Chicago Historical Society: N. Clark St. at North Ave., Chicago 14, Ill. Open: wkdys. 9:30-4:30, Sun. 12:30-5:30. Free (Sun., Mem. Day, July 4, Lab. Day 30c.).

Exhibits and period rooms from discovery and exploration of America to present. Special emphasis on history of Chicago. Washington, Lincoln exhibits. Research library.

Chicago Natural History Museum (formerly Field Museum): Roosevelt Rd. at Lake Shore Dr., Chicago 5, Ill. Open: wkdys. & Sun.—Nov.—Feb. 9-4; May-Aug. 9-6; Mar., Apr., Sept., Oct. 9-5 (closed Xmas and NY Day). Adm. 30c. (free Thurs., Sat., Sun.).

Exhibits in anthropology, botany, geology, zoology. Prehistoric skeletons. Dioramas of Stone-Age Europe. Vast Egyptian collection. Model of moon.

Museum of Science and Industry: 57th St. at Lake Michigan, Chicago 37, Ill. Open: fall & winter—wkdys. 9:30-4 (Sat. 9:30-5:30), Sun. & hldys. 9:30-7; spring & summer—wkdys. 9:30-5:30, Sun. & hldys. 9:30-7. Free (small fee to several exhibits).

Over 8 acres of exhibits. Working coal mine. Full-size street of 1910. Fully equipped farm. Evolution of automobile and airplane. Working iron foundry. Exhibits in physics, medicine, chemistry. Colleen Moore's Doll House.

Oriental Institute of the University of Chicago: 1155 E. 58th St., Chicago 37, Ill. Open: wkdys. 10-12, 1-5 (closed Mon.), Sun. 1-5. Free.

Representative collections of ancient Near Eastern objects, including 40-ton human-headed winged bull from Khorsabad, 16-ft. statue of Tutenkhamon from Egypt, gold ornaments from ancient Persia, ivories from Megiddo.

Vanderpoel (John H.) Memorial Art Gallery: Longwood Dr. at 96th St., Chicago 43, Ill. Open: wkdys. & Sun. 9-5 (closed hldys.). Free.

Paintings, watercolors, etchings, sculpture. Attempts to serve the person unformed in art as well as the connoisseur.

WASHINGTON, D. C.

Corcoran Gallery of Art: 17th St. at New York Ave., N. W., Washington 6, D. C. Open: wkdys. 10-4:30 (Mon. 12-4:30, Sat. 9-4:30), Sun. & hldys. 2-5 (closed Xmas & July 4). Free.

Specializes in American art, but has notable collection of 17th century Dutch and 19th century French paintings. Persian rugs, Italian majolica, Greek and Roman antiquities. Bayre bronzes, Large collection of American sculpture.

Freer Gallery of Art: Jefferson Dr. at 12th St., S.W., Washington 25, D. C. Open: wkdys. & Sun. 9-4:30 (closed Xmas). Free. Oriental paintings, sculpture, bronzes, pottery, metalwork, manuscripts. Largest extant Whistler collection.

National Air Museum, Smithsonian Institution: The Mall, 10th and Jefferson Dr., Washington 25, D. C. Open: every day but Xmas 9-4:30. Free.

38 aircraft exhibited, including Wright brothers' *Kitty Hawk*, Lindbergh's *Spirit of St. Louis*, Wiley Post's *Winnie Mae*, Bell Supersonic X-1. Guided missiles, engines, propellers, structure specimens, instruments, scale models, etc.

National Collection of Fine Arts: Constitution Ave. at 10th St., Washington 25, D. C. Open: wkdys. & Sun. 9-4:30. Free.

Art collections given by Harriet Lane Johnston, Ralph Cross Johnson, William T. Evans, John Gellatly and others.

National Gallery of Art: Constitution Ave. at 6th St., Washington 25, D. C. Open: wkdys. 10-5, Sun. 2-10, closed Xmas & New Year's Day. Free.

Paintings, sculpture, drawings, prints, decorative arts given by Mellon, Kress, Widener, Rosenwald, Dale, the Booths and others. Gulbenkian loans. Index of American Design. Concerts.

Smithsonian Institution: on the Mall, Washington 25, D. C.

Maintains the following museums and art galleries: Freer Gallery of Art, National Air Museum, National Collection of Fine Arts, National Gallery of Art, U. S. National Museum. See those entries.

United States National Museum: several bldgs. on the Mall, Washington 25, D. C. Open: wkdys. & Sun. 9-4:30. Free.

Exhibits in anthropology, biology, geology, engineering, industry, history. Relics of Washington and Lincoln.

PHILADELPHIA

Academy of Natural Sciences of Philadelphia: 19th and the Parkway, Philadelphia 3, Pa. Open: wkdys. 9-5 (summer 9-4), Sun. 1-5. Free.

Large habitat groups of animals of North America, Africa, Asia. Hall of Earth History and Audubon Bird Hall. Minerals and gems. Library.

Franklin Institute of the State of Pennsylvania for the Promotion of the Mechanic Arts: 20th St. at Benj. Franklin Pkwy., Philadelphia 3, Pa. Open: wkdys. 12-5 (Sat. 10-5, closed Mon.), Sun. 12-5. Adm. 60¢.

Activities grouped into 7 major categories: Benj. Franklin Memorial; monthly Journal; lectures; library; medal awards;

museum of science and industry, including planetarium; research laboratories.

Pennsylvania Academy of the Fine Arts: Broad and Cherry Sts., Philadelphia 2. Open: wkdys. 10-5 (closed Mon., July 4, Thns. Day, Xmas, NY Day), Sun. & hldys. 1-5. Free (except during two annual exhibitions).

Permanent collections include American art from 18th century to present. Special winter exhibit of painting, sculpture. Special fall exhibit of water colors, prints.

Philadelphia Museum of Art: Parkway at 26th St., Philadelphia 30, Pa. Open: wkdys. & Sun. 9:30-5 (closed all legal hldys.). Free.

Art from beginning of Christian era. Paintings: old masters, contemporary French, American, Mexican. Prints, decorative arts, period rooms. Architectural units. Medieval and Oriental arts.

MUSEUMS IN OTHER CITIES

Alabama Museum of Natural History: University of Alabama, Tuscaloosa. Open: wkdys. & Sun. 8-5. Free.

All phases of natural history with emphasis on geology. See also Mound State Monument Archaeological Museum.

Albright Art Gallery. See Buffalo Fine Arts Academy.

Atkins Museum. See Nelson Gallery.

Atomic Energy, American Museum of: Oak Ridge, Tenn. Open: wkdys. 9:30-5; Sun. 12:30-6:30. Adm. 50c (children under 12 free).

Scale models, pictures, etc. illustrating processes and principles of atomic energy. First museum in world devoted exclusively to subject.

Baseball Hall of Fame and Museum, Natl.: Main St., Cooperstown, N. Y.

Relics, pictures, documents of baseball history. Bronze plaques of game's immortals. See also Hall of Fame in index.

Berkshire Museum: Pittsfield, Mass. Open: wkdys. 10-5 (closed Mon.), Sun. 2-5. Free. Art objects from Egyptian to modern times. Paintings and sculpture. Indian and Eskimo exhibits. Birds, animals, minerals. Original "One Horse Shay."

(Boston) **Museum of Fine Arts:** 465-479 Huntington Ave., Boston 15, Mass. Open: wkdys. 9-5 (closed Mon.), Sun. 1:30-5:30. Free.

European and American paintings. Early American silver, furniture, interiors. Print collection largest in U. S. Noted Asiatic, Egyptian, Classical collections.

Buffalo Fine Arts Academy—Albright Art Gallery: 1285 Elmwood Ave., Buffalo 22, N. Y. Open: wkdys. 10-5 (Mon. 2-6, Wed. 2-10), Sun. 2-6. Free.

European and American paintings, including contemporary works. Sculpture

court. Small sculptures and ceramics. Library and concerts.

Buffalo Museum of Science: Humboldt Park, Buffalo, N. Y. Open: wkdys. 10-5 (Sat. 9-5), Sun. & hldys. 1:30-5:30. Free.

Extensive natural history collections. African and South Sea exhibits. Chinese pottery. Babylonian seals. First and rare editions of scientific monographs.

California Academy of Sciences: Golden Gate Park, San Francisco 18. Open: wkdys. & Sun. 10-5. Free.

North American and African habitat groups. Exhibits of large game fish. Reptiles, plants, fossils, minerals. Astronomical exhibits. Aquarium.

California Palace of the Legion of Honor: Lincoln Park, San Francisco. Open: daily 10-5 (hldys. 1-5). Free.

European and American paintings. Rodin sculpture and drawings. Furniture, bronzes, porcelain, tapestries. Egyptian art. Organ recitals and movies.

Carnegie Institute: 4400 Forbes St., Pittsburgh 13, Pa. Open: wkdys. 10-5 (Tues. during winter mos. 10-10), Sun. 2-6. Free.

Department of Fine Arts: European and American paintings, ancient sculpture. Carnegie Museum: exhibits in history and natural history. Decorative and useful arts. Music Hall. Carnegie Library.

Cincinnati Art Museum: Eden Park, Cincinnati 6, Ohio. Open: wkdys. 10-5 (Tues. during Oct.-May 1-10), Sun. & hldys. 2-5. Free.

Paintings, prints since 15th century. Egyptian, Greco-Roman, Medieval, Oriental sculpture. Near and Far Eastern pottery, bronzes. Musical instruments, decorative arts, period rooms. Library, movies.

Cleveland Museum of Art: Wade Park, Cleveland 6, Ohio. Open: wkdys. 9-5 (Wed. 9 A.M.-10 P.M., Fri. 9-5, 7-10 Oct. thru May, closed Mon.), Sun. 1-6. Free.

Classical and modern art of all nations and ages; considerable art of Cleveland. Paintings, sculpture, graphic arts, furniture, textiles. Byzantine, Medieval, Early American collections.

Cleveland Museum of Natural History: 2717 Euclid Ave., Cleveland 15, Ohio. Open: wkdys. 9-5, Sun. 2-6. Free.

Mammals, birds, reptiles, fish, insects, plant models, minerals, gems. Most complete mastodon yet found. African collections. Spitz planetarium.

Colorado Springs Fine Arts Center: 30 W. Dale St., Colorado Springs, Colo. Open: wkdys. 10-5 (closed Mon. from Sept. thru May), Sun. 1:30-5. Free.

Contemporary paintings. Latin American and Southwestern folk arts and crafts. Navajo sand-painting reproductions. Frequently changing exhibitions. Concerts, theater arts, art school.

Currier Gallery of Art: 192 Orange St.,

Manchester, N. H. Open: wkdys. 10-5, Sun. 2-5. Free.

Paintings, prints, drawings, sculpture, glass, tapestries. American furniture and decorative arts of 17th to 19th centuries. Monthly loan exhibitions. Concerts, lectures, movies.

Davenport Public Museum: Brady St. at 7th, Davenport, Iowa. Open: wkdys. 9-5 (closed Mon.), Sun., hldys. 2-5. Free.

Science, history, applied art exhibits, including anthropology, ethnology, Oriental and Mediterranean culture. Art and Historical Library at 215 Main St.

Denver Art Museum: 5 museums, under administration of Schiele Gallery, 1343 Acoma St., Denver 4, Colo. Open: wkdys. 9-5 (Mon. 2-5, 7-9), Sun. 2-5. Free.

European, American paintings and decorative arts. Oriental, South Sea, African, Latin American, Amer. Indian arts and crafts. Temporary, changing exhibitions. Art school, children's museum.

Denver Museum of Natural History: City Park, Denver 6. Open: wkdys. 9-5, Sun. 12-5. Free.

Natural history of North and South America. Habitat groups of mammals and birds. Minerals, fossil mammal and reptile skeletons.

Detroit Institute of Arts: 5200 Woodward Ave., Detroit 2, Mich. Open: Sept.-June—wkdys. 1-10 (Sat. 9-6, closed Mon.), Sun. 9-6; July & Aug.—wkdys. & Sun. 9-6 (closed Mon.); closed all hldys. Free.

Survey of history as expressed in arts. Paintings, sculpture, furniture, glass, gold work, ivory, graphic arts, textiles. Large murals by Diego Rivera. Lectures, movies, gallery talks.

Farmers' Museum: Lake Rd., Route 80, Cooperstown, N. Y. Open: May-Oct. every day 9-6. Adm. 75¢.

Early farm and handicraft tools. Schoolhouse, country store, smithy, lawyer's office, print shop, doctor's office, pharmacy. Cardiff Giant. Operated by N. Y. State Historical Assn.

Fenimore House: Lake Rd., Route 80, Cooperstown, N. Y. Open: May-Oct.—every day 9-6; rest of yr.—wkdys. 9-5, closed Sat. & Sun. Adm. 75¢.

American portraits, genre paintings. Browere life masks of Founding Fathers. Hamilton-Burr Room. James Fenimore Cooper Collection. Folk art, Shaker collection. Library. Operated by N. Y. State Historical Assn.

Gardner (Isabella Stewart) Museum: 280 The Fenway, Boston 15, Mass. Open: Tues., Thurs., Sat. 10-4, Sun. 1-4 (closed other days, hldys., and during Aug.). Free (children under 8 not admitted).

Renaissance art in setting resembling Venetian palace. Painting, sculpture, tapestries, furniture. Music in Tapestry Room in afternoon of open days.

Heard Museum: 22 E. Monte Vista Rd., Phoenix, Ariz. Open: wkdys. & Sun. 1-5 (closed Mon.). Free.

Prehistoric and historic pottery, blankets, beadwork, carvings, weapons, etc. from various parts of world.

Herron (John) Art Museum: 110 E. 16th St., Indianapolis, Ind. Open: wkdys. 9-5 (closed Mon. & hldys.), Sun. 1-6. Free.

European paintings from Renaissance to present. American paintings of 19th and 20th centuries. Egyptian, Greek, Asiatic sculpture and ceramics.

Huntington (Henry E.) Library and Art Gallery: San Marino 9, Calif. Open: wkdys. & Sun. 1-4:30 (closed Mon. and during Oct.). Free (reservations must be made).

18th century British paintings. Library of English and American history and literature. Gutenberg Bible. Franklin's autobiography in his handwriting. Botanical garden. Research facilities.

Layton Art Gallery: 758 N. Jefferson St., Milwaukee 2, Wis. Open: wkdys. 9-5, Sun. 2-5. Free.

Exhibitions of selections from permanent collections, including contemporary artists. Special exhibitions, lectures.

Los Angeles County Museum: Exposition Park, Los Angeles 7, Calif. Open: wkdys. & Sun. 10-5 (closed Mon., Thns. Day, Xmas). Free.

American, European, Eastern art. American, English silver. American Indian exhibits. California History Hall. Movies, lectures, concerts, library.

Mint Museum of Art: 501 Eastover Rd., Charlotte, N. C. Open: wkdys. 10-5 (closed Mon.), Sun. 3-5. Museum closed June 24-Sept. 8. Free.

American and European paintings and prints. Period furniture. Relics of former U. S. branch mint. Eagle on façade believed to be largest carved wooden eagle in world.

Mound State Monument Archaeological Museum: Moundville, Ala. Open: wkdys & Sun. 8-5. Adm. 25c.

Uncovered Indian burials, etc., of Moundville Indians. Operated by Alabama Museum of Natural History.

Navajo Ceremonial Art, Museum of: Camino Lejo, near old Pecos Rd., Santa Fe, N. Mex. Open: wkdys. 9-12, 1-4:30 (closed Mon.), Sun. 3-5. Adm. 25c (free Sun.).

Sand paintings, ceremonial objects, baskets, blankets, silver. Music records of chants. Comparative material from Asia and elsewhere. Library.

Nelson (William Rockhill) Gallery of Art and Atkins Museum of Fine Arts: 4525 Oak, Kansas City 2, Mo. Open: wkdys. 10-5 (Fri. 1-5, closed Mon.), Sun. & hldys. 2-6 (closed NY Day, July 4, Thns. Day, Xmas). Also open Fri. eves. 7-10 from Oct. 1-Apr. 30. Adm. 25c. (free Sat., Sun., hldys., Fri. eves.).

European paintings from 13th century to present. Extensive Chinese collection. Egyptian, Greek, Roman collections. English pottery. Concerts, movies.

New York State Historical Association: Lake Rd., Route 80, Cooperstown, N. Y.

Maintains Farmers' Museum and Fenimore House. See those entries. Also operates museum and library on Moses Circle in village of Ticonderoga.

Newark Museum: 49 Washington St., Newark 1, N. J. Open: Oct.-June—wkdays, 12-5:30 (Wed. & Thur. 12-5:30, 7-9:30), Sun. & hldys. 2-6; July-Sept.—wkdays. 12-5 (Thur. 12-5, 6:30-9), Sun. & hldys. 2-6. Free.

American painting and sculpture, including contemporary work. Outstanding Tibetan collection. Ancient glass. Coins of all nations. Exhibits in mechanical motion, astronomy, natural science, anthropology. Concerts. Workshop, Jr. museum.

Ringling (John & Mable) Museums: Sarasota, Fla. Open every day: Art Museum 9-4:30, Residence and Circus Museum 10-4. Adm.: Art Museum \$1, Residence (incl. Circus Museum) \$1, Circus Museum 50c.

Baroque, other paintings and 18th-century Italian theater in Art Museum. Elaborate furnishings in Residence. Illustrative and historical material in Museum of the American Circus.

Rosiercrucian Egyptian, Oriental Museum: San Jose, Calif. Open: wkdays. 9-5 (Sat. 1-5), Sun. 12-5. Free.

Egyptian and Oriental antiquities. Mummies, statuary, jewelry, utensils, clothing. Reproductions of Egyptian rock tomb and temple. Art gallery.

(St. Louis) City Art Museum: Forest Park, St. Louis 5, Mo. Open: wkdays. & Sun. 10-5 (Mon. 2:30-9:30). Free.

Oriental and Western art and decorative arts. Paintings, sculpture, prints, ceramics, oriental rugs. Period rooms.

San Diego, Fine Arts Gallery of: Plaza de Panama, Balboa Park, San Diego, Calif. Open: wkdays. 10-5 (closed Mon.), Sun. 1-5:30. Free.

European, American paintings, 14th century to present, with emphasis on Spanish, Italian art. Asiatic arts and prints. Library, workshop.

San Diego Museum of Man: California Quadrangle, Balboa Park, San Diego, Calif. Open: wkdays. 10-5 (closed Tues.), Sun. 1-5. Free.

Archaeology, anthropology, ethnology, primitive weapons, health education. Emphasis on American Indians and Central America. Library, auditorium.

San Diego Society of Natural History—Natural History Museum: San Diego, Calif. Open: wkdays. & Sun. 10-4:30 (closed Xmas, NY Day). Free.

Mammals, birds, fossils, shells, plants, insects, minerals. Emphasis on Southwestern U. S., Sonora, Lower California. Library.

San Francisco Museum of Art: War Memorial Bldg., San Francisco, Calif. Open: wkdays. 12-10, Sun. 1-5. Free.

Contemporary European, American paintings, sculpture, drawings, prints, architecture, photographs, decorative arts, including work by San Francisco artists. 60-70 annual exhibitions. Concerts, movies, library.

Southwest Museum, Inc.: Marmion Way at Museum Dr., Highland Pk., Los Angeles 42, Calif. Open: wkdays. & Sun. 1-5 (closed Mon., Xmas, July 4). Free.

American Indian exhibits, ancient and modern. Library, lectures. Casa de Adobe, reproduction of adobe hacienda, located at 4605 N. Figueroa St.

Toledo Museum of Art: Monroe at Scottwood, Toledo 2, Ohio. Open: wkdays. 9-5 (Mon. 1-5), Sun. hldys. 1-5. Free.

Dutch, French, English, American paintings. Old Masters. Prints, manuscripts, sculpture. Ancient, modern glass. Oriental, Egyptian art. Library, concerts.

Virginia Museum of Fine Arts: Boulevard at Grove Ave., Richmond 20. Open: wkdays. 11-5 (closed Mon.), Sun. 2-5. Free Wed., Sat., Sun (other days 30c).

European, American, Oriental, Pacific Island art. Special collections: modern French, American paintings, Russian Crown Jewels. Statewide educational programs.

Wadsworth Atheneum: 25 Atheneum Sq., N., Hartford 3, Conn. Open: wkdays. 12-5 (Sat. 9-5, closed Mon., Gd. Fri., July 4, Labor Day, Thanks. Day, Xmas, NY Day), Sun. 2-5. Free.

European and American paintings from 1400 to present. Bronzes, porcelain, silver. American period rooms and furniture. Library, concerts, movies.

Walters Art Gallery: Charles and Centre Sts., Baltimore 1, Md. Open: wkdays. 11-5 (July-Aug. 11-4) (Mon., Oct.-May, 1:30-5, 7:15-9:15), Sun. & hldys. 2-5 (closed NY Day, July 4, Thanks. Day, Xmas Eve, Xmas). Free.

Art from ancient empires to 19th century Europe. Important collections of Etruscan art and medieval illuminated books. Original manuscript of "Star-Spangled Banner."

Worcester Art Museum: 55 Salisbury St., Worcester 2, Mass. Open: wkdays. 10-5 (Tues. in Nov.-Apr. 10-10), Sun. 2-5, hldys. 2-5 (closed July 4, Thanks. Day, Xmas). Free.

Art from Egyptian to modern times, including Far East. Emphasis on painting and sculpture. Classes, lectures, concerts, films. Professional art school.

U. S. Postal Regulations

Source: U. S. Post Office.

FIRST CLASS:

Letters and written and sealed matter: 3¢ for each oz., except that drop letters are subject to 2¢ for each oz. when deposited for local delivery at offices not having letter-carrier service, provided they are not collected or delivered by rural or star-route carriers.

Government postal cards: single, 2¢; double, 4¢.

Private mailing or post cards: 2¢.

Limit of weight when mailed from one first-class post office to another: 40 lb. in local, first and second zones, 20 lb. in third to eighth zones.

Limit of weight when mailed to or from second-, third- and fourth-class post offices: 70 lb.

AIR MAIL (LIMIT 8 OZ.):

6¢ for each oz. or fraction thereof within the continental U. S., within any Territory or possession of the U. S., or between any of the foregoing. This includes air mail to or from Alaska, Hawaii, Puerto Rico, Virgin Islands of the U. S., Canton Island, Canal Zone, Guam and any other place where the U. S. mail service is in operation.

AIR PARCEL POST (OVER 8 OZ. TO 70 LB.):

The zone rates below shall apply to mailable matter of any class carried by air. Such matter shall not exceed 100 in. in length and girth combined, including written and other matter of the first class, whether sealed or unsealed. Fractions of a lb. are charged as a full lb.

Parcels weighing less than 10 lb. and measuring more than 84 in., but not more than 100 in. in length and girth combined, shall be subject to the 10-lb. rate.

Air Parcel-Post Zone Rates

Zone and (miles)	First lb.	Addl. lbs.
First, Second & Third (to 300)	60¢	48¢
Fourth (300-600)	65¢	50¢
Fifth (600-1,000)	70¢	56¢
Sixth (1,000-1,400)	75¢	64¢
Seventh (1,400-1,800)	75¢	72¢
Eighth (over 1,800)	80¢	80¢

The eighth-zone rate shall be charged on air parcel post between the U. S. or its Territories and possessions and overseas A.P.O.'s and Fleet post offices, as well as naval vessels and commands afloat addressed in care of Fleet post offices at New York or San Francisco.

Air parcels mailed at New York, N. Y., and addressed to Puerto Rico and the Virgin Is. are subject to the seventh-zone rate.

SECOND CLASS (NO WEIGHT LIMIT):

Newspapers, magazines and other periodicals containing notice of second-class entry.

For rates for publications mailed by the publishers or registered news agents, consult local postmaster.

Transient rate for matter mailed by others than the publishers or registered news agents: 2¢ for the first 2 oz., 1¢ for each additional 2 oz. However, if the fourth-class rate is cheaper, it shall apply.

THIRD CLASS (LIMIT 8 OZ.):

Covers mailable matter not in the first and second classes.

Regular rate: 2¢ for the first 2 oz., 1¢ for each additional oz. Books and catalogs of 24 pages or more, seeds, cuttings, bulbs, etc.: 2¢ for the first 2 oz., 1½¢ for each additional 2 oz.

Bulk rate: for \$10 per year or fraction thereof, separately addressed identical pieces of third-class matter in quantities of not less than 20 lb. or of not less than 200 pieces are subject to the lb. rates of postage applicable to the entire bulk mailed at one time.

The bulk rate for miscellaneous printed matter, etc. is 14¢ for each lb., with a minimum charge of 1½¢ per piece. For books and catalogs of 24 pages or more, seeds, etc., the rate is 10¢ for each lb., with a minimum charge of 1½¢ per piece.

Pieces of such size or form as to prevent ready facing and tying in bundles and requiring individual distributing throughout are subject to a minimum charge of 3¢ each.

FOURTH CLASS (PARCEL POST) (OVER 8 OZ.):

Merchandise, books, printed matter and all other mailable matter not in first or second class.

The zone rates below shall apply to fourth-class matter, except catalogs, books, library books, publications or records for the blind, and certain controlled circulation publications.

Limit of size*: 72 in. in length and girth combined.

Limit of weight*: over 8 oz. to 40 lb. in local, first and second zones, over 8 oz. to 20 lb. in third to eighth zones.

Note: The following five items have a size limit of 100 in. in length and girth

* When mailed from one first-class post office to another.

combined, a weight limit of over 8 oz. to 70 lb.: (1) parcels sent to or from rural or star routes; (2) parcels sent to or from second-, third-, and fourth-class post offices; (3) parcels containing baby fowl, live plants, trees, shrubs, or agricultural commodities (not including manufactured products thereof); (4) parcels containing books; (5) parcels mailed between the U. S. and any Army or Fleet post office or between the U. S. and any Territory or possession of the U. S.

Fourth-Class Zone Rates

Zone and (miles)	First lb.	Add. lbs.
Local	\$.15	\$.0125
First & Second (to 150)*	.17	.0240
Third (150-300)	.17	.0350
Fourth (300-600)	.19	.0475
Fifth (600-1,000)	.21	.0675
Sixth (1,000-1,400)	.23	.0925
Seventh (1,400-1,800)	.25	.1150
Eighth (over 1,800)	.27	.1400

* In the 1st or 2nd zone, where the distance by the shortest practicable mail route is 300 mi. or more, the rate shall be the same as for the 3rd zone.

The zone rates below shall apply to individually addressed catalogs and similar printed advertising matter in bound form weighing more than 8 oz. but not exceeding 10 lb.

Catalog Zone Rates

Zone and (miles)	First lb.	Add. lbs.
Local	\$.10	\$.0150
First & Second (to 150)*	.11	.0250
Third (150-300)	.12	.0300
Fourth (300-600)	.13	.0400
Fifth (600-1,000)	.15	.0550
Sixth (1,000-1,400)	.16	.0700
Seventh (1,400-1,800)	.17	.0900
Eighth (over 1,800)	.18	.1100

* In the 1st or 2nd zone, where the distance by the shortest practicable mail route is 300 mi. or more, the rate shall be the same as for the 3rd zone.

BOOKS (LIMIT 70 LB.):

Books (containing no advertising matter other than incidental announcements of books) for all zones: 8¢ first lb., 4¢ each additional lb.

LIBRARY BOOKS (LIMIT 70 LB.):

Books sent by authorized libraries to readers and when returned by such readers, for delivery within the first three zones or the state in which mailed: 4¢ first lb., 1¢ each additional lb.

SPECIAL DELIVERY AND SPECIAL HANDLING:

The prepayment of the special-delivery fee entitles mail to the most expeditious handling and transportation possible, and also entitles it to special delivery at the office of address.

Prepayment of the special-handling fee entitles fourth-class matter to the most expeditious handling, transportation and delivery possible, but not special delivery at the office of address.

Special Delivery and Special Handling

Weight	Special delivery First class	2nd, 3rd, 4th class	Special handling (4th class only)
Up to 2 lb.	20¢	35¢	15¢
2 to 10 lb.	35¢	45¢	20¢
Over 10 lb.	50¢	60¢	25¢

MONEY ORDERS:

Money orders for amounts from 1¢ to \$100 are issued upon written application made by the remitter or his agent showing the amount of the order and the names and complete addresses of the payee and remitter. Fees are as follows:

Amount of order	Fee
\$.01 to \$ 5.00	10¢
5.01 to 10.00	15¢
10.01 to 50.00	25¢
50.01 to 100.00	35¢

REGISTERED MAIL:

Fees for domestic registered mail (first-, second- and third-class matter, and sealed fourth-class matter on which postage at the first-class rate has been paid):

Indemnity limit	Fee
No indemnity	\$.30
\$.01 to \$ 5.00	.40
5.01 to 25.00	.55
25.01 to 50.00	.65
50.01 to 75.00	.75
75.01 to 100.00	.85
100.01 to 200.00	.95
200.01 to 300.00	1.05
300.01 to 400.00	1.15
400.01 to 500.00	1.25
500.01 to 600.00	1.35
600.01 to 700.00	1.45
700.01 to 800.00	1.55
800.01 to 900.00	1.65
900.01 to 1000.00	1.75

For registered mail having a declared value in excess of the maximum indemnity covered by the registry fee paid there shall be charged additional fees (surcharges):

When declared value exceeds maximum indemnity covered by registry fee paid—	Fee
By not over \$50	2¢
By over \$50 but not over \$100	3¢
By over \$100 but not over \$200	4¢
By over \$200 but not over \$400	6¢
By over \$400 but not over \$600	7¢
By over \$600 but not over \$800	8¢
By over \$800 but not over \$1000	10¢

If the excess of the declared value over the maximum indemnity covered by the registry fee paid is \$1,000 or more, the additional fees for each \$1,000 or part of \$1,000 on articles destined to points within the several zones applicable to fourth-class matter shall be as follows:

Zone	Fee
For local delivery or for delivery within 1st zone	12¢
For delivery within 2nd zone	14¢
For delivery within 3rd zone	16¢
For delivery within 4th zone	17¢
For delivery within 5th or 6th zones	18¢
For delivery within 7th or 8th zones	19¢

In the case of nonnegotiable securities, surcharge is based on known or estimated cost of duplication, including the cost of an indemnity bond if required. If the cost of duplication cannot be determined readily, it may be stated by the sender as 6% of the market value.

INSURED MAIL:

Fee for insured mail (savings bonds, stubs, etc.) treated as registered mail under special authorization by the Department: 20¢.

Fees for domestic insured mail (third- and fourth-class matter):

Indemnity limit	Fee
\$.01 to \$ 5.00	5¢
5.01 to 10.00	10¢
10.01 to 25.00	15¢
25.01 to 50.00	20¢
50.01 to 100.00	30¢
100.01 to 200.00	35¢

C.O.D. MAIL:

Fees for domestic unregistered C.O.D. mail (third- and fourth-class matter and sealed domestic mail matter of any class bearing postage at the first-class rate):

Indemnity limit	Fee
\$.01 to \$ 5.00	30
5.01 to 10.00	40
10.01 to 25.00	60
25.01 to 50.00	70
50.01 to 100.00	80
100.01 to 150.00	90
150.01 to 200.00	1.00

Fees for domestic registered C.O.D. mail (sealed domestic mail of any class bearing postage at the first-class rate):

Amount collectible and indemnity payable	Fee
\$.01 to \$ 10.00	.80
10.01 to 50.00	1.10
50.01 to 100.00	1.20
100.01 to 200.00*	1.40

* Limit of collections.

When indemnity in excess of \$200 is desired, the fees for domestic registered C.O.D. mail are:

Indemnity limit	Fee
\$200.01 to \$ 300.00	1.50
300.01 to 400.00	1.60
400.01 to 500.00	1.70
500.01 to 600.00	1.80
600.01 to 700.00	1.90
700.01 to 800.00	2.00
800.01 to 1000.00	2.10

MISCELLANEOUS:

In registered and insured mail, a receipt card will be returned to the sender upon request. When a card is requested showing to whom and when the delivery was made, the rate is 7¢ if the request is made at the time of mailing, 15¢ if made thereafter. When a card is requested showing to whom and when the delivery was made and the address, the rate is 31¢ and must be paid at the time of mailing.

Fees for effecting delivery of domestic registered, insured, and C.O.D. mail to addressee only or to addressee or order: 20¢.

Fee for notifying sender or his representative of inability to deliver a C.O.D. article: 5¢.

A demurrage charge of 5¢ a day is collected on each C.O.D. article which the addressee fails to accept within 15 days after the first attempt to deliver or the first notice of arrival at the office of address is given.

Certificates of mailing for ordinary mail of any class and additional certificates for ordinary, registered, insured and C.O.D. mail: 1¢ for each article described thereon.

The sending of registered or insured mail to Army and Navy personnel overseas is restricted. Consult postmaster for details. C.O.D. mail cannot be sent to Navy personnel on board ships or at overseas shore stations.

FOREIGN REGULAR MAIL:

South and Central America (except European possessions), Canada, Cuba, Dominican Republic, Haiti, Andorra, Spain and Philippines: letters, 3¢ an oz. or fraction thereof; post cards, 2¢ single, 4¢ reply-paid.

Other countries: letters, 5¢ first oz., 3¢ each additional oz. or fraction thereof; post cards, 3¢ single, 6¢ reply-paid.

FOREIGN AIR MAIL:

Air-letter sheets: Air letters, consisting of sheets which can be folded into the form of an envelope and sealed, are acceptable for dispatch by air mail at a uniform rate of 10¢ each to all foreign countries. The sheets are sold at all post offices at 10¢ each. No enclosures, adhesive tape or stickers are permitted.

Letters and letter packages: See table for rates.

Air-Mail Rates from U. S. to Various Countries

Country	Air mail ¹	Air parcel post			Country	Air mail ¹	Air parcel post		
		Initial unit ²	Addl. weight ³	Limit, lbs.			Initial unit ²	Addl. weight ³	Limit, lbs.
Albania.....	.15	....	....	..	Indonesia.....	.25	....	....	..
Algeria.....	.15	....	....	..	Iran.....	.25	....	....	..
Argentina.....	.10	1.51	.76	44	Iraq.....	.25	1.47	.72	44
Australia.....	.25	1.62	1.27	11	Ireland.....	.15	.97	.37	11
Austria.....	.15	1.05	.49	22	Israel.....	.25	1.42	.67	22
Bahamas.....	.10	.83	.14	22	Italy.....	.15	1.08	.50	44
Belgium.....	.15	.98	.43	44	Jamaica.....	.10	....	....	..
Bermudas.....	.10	.76	.13	22	Japan.....	.25	1.27	.91	22
Bolivia.....	.10	1.08	.40	44	Jordan.....	.25	....	....	..
Brazil.....	.10	1.48	.64	44 ⁴	Korea.....	.25	1.37	1.01	22
British Guiana.....	.10	1.07	.39	22	Lebanon.....	.25	1.22	.64	44 ¹³
British Honduras.....	.10	....	....	..	Liberia.....	.25	....	....	..
Bulgaria.....	.15	....	....	..	Mexico.....	.06 ⁵	.64	.18	44
Burma.....	.25	....	....	..	Morocco.....	.15	1.19 ¹⁴	.54 ¹⁴	44 ¹⁴
Canada ^{5, 6}.....	.06	....	....	..	Netherlands.....	.15	.89	.44	44
Ceylon.....	.25	1.75	1.00	22	New Zealand.....	.25	1.82	1.17	22
Chile.....	.10	1.31	.56	22	Nicaragua.....	.10	.80	.29	44
China ⁷.....	.25	1.43 ⁸	1.08 ⁸	22 ⁸	Norway.....	.15	1.02	.47	44
Colombia.....	.10	1.21	.40	44	Pakistan.....	.25	1.63	.84	22
Costa Rica.....	.10	.79	.29	44	Panamá.....	.10	....	....	..
Cuba.....	.08	(⁹)	(⁹)	22	Paraguay.....	.10	....	....	..
Czechoslovakia.....	.15	.88	.48	44	Peru.....	.10	....	....	..
Denmark.....	.15	.97	.47	44	Philippines.....	.25	1.81	1.26	44 ¹⁵
Dominican Republic.....	.10	.86	.22	44	Poland.....	.15	1.06	.52	44
Ecuador.....	.10	1.24	.33	44	Portugal.....	.15	.71	.44	11 ¹⁶
Egypt.....	.15	1.35	.64	22	Rumania.....	.15	....	....	..
El Salvador.....	.10	1.02	.26	44	Saudi Arabia.....	.25	1.56 ¹¹	.77 ¹¹	22 ¹¹
Ethiopia.....	.25	....	....	..	Spain.....	.15	1.21	.45	11
Finland.....	.15	.88	.51	44	Surinam.....	.10	.92	.41	44
France.....	.15	1.22	.44	44	Sweden.....	.15	.85	.49	44
French Guiana.....	.10	.79	.44	11	Switzerland.....	.15	.92	.46	44
Germany.....	.15	.95	.45	22	Syria.....	.25	1.22	.64	44 ¹²
Greece.....	.15	1.07	.57	22	Thailand.....	.25	2.29	1.50	22
Guatemala.....	.10	1.01	.25	44	Turkey.....	.15	1.15	.57	44
Haiti.....	.10	.72	.21	44	U. of S. Africa.....	.25	1.31	.94	11
Honduras.....	.10	.78	.28	44 ¹⁰	U.S.S.R.....	.15	1.66	.63	22
Hong Kong.....	.25	1.74	1.39	22	United Kingdom.....	.15	1.00	.41	22
Hungary.....	.15	....	....	..	Uruguay.....	.10	1.26	.76	44
Iceland.....	.15	.89	.33	44	Venezuela.....	.10	1.27	.36	44
India.....	.25	1.70	.96	22	Yugoslavia.....	.15	.87	.52	44

¹ For letters and letter packages. Unless otherwise indicated, rate shown is per each $\frac{1}{4}$ oz., and weight is limited to 4 lb., 6 oz. For rates for commercial papers, printed matter, samples of merchandise, small packets, 8-oz. merchandise packages, combination packages and articles grouped together, consult local postmaster. ² Rate for 4 oz. or fraction thereof. ³ Rate for each additional 4 oz. or fraction thereof. ⁴ Parcels for Brazil exceeding 22 lb. accepted for following offices only: Belem (Para), Belo Horizonte, Florianopolis, Fortaleza, Manaus, Pelotas, Porto Alegre, Recife (Pernambuco), Rio de Janeiro, Rio Grande (Rio Grande do Sul), Salvador (Bahia), Santos and Sao Paulo. ⁵ Per oz., post cards each 4c. ⁶ Articles limited to 60 lb. in weight. ⁷ Registered and ordinary articles in regular mails for Island of Formosa (Taiwan) will be accepted for air transmission to destination. Ordinary (unregistered) articles for all other destinations in China, including Manchuria and Mongolia, prepaid at air-mail rate will be accepted for transmission by air to Hong Kong and onward transmission by surface means. ⁸ Air parcel post for China is temporarily suspended. ⁹ Service to Cuba is limited to parcels weighing over 8 oz. and up to 22 lb. Cost for initial weight unit, which is over 8 oz. and up to 12 oz., is \$1.10. Each additional 4 oz. or fraction is 15¢. Packages weighing 8 oz. or less must not have customs declarations or parcel post stickers attached. ¹⁰ Parcels for Honduras exceeding 22 lb. accepted for following offices only: Amapala, Comayagua, La Ceiba, Olanchito, Progreso, Puerto Castilla, Puerto Cortez, San Pedro Sula, Tegucigalpa and Tela. ¹¹ Air parcels for Saudi Arabia limited to post office of Dhahran, Hassa, Katif, Khobar, Rastanunna and Riyadh only. ¹² Limit to Chaba and Sakhad is 11 lb.; limit to Bloudan, Tel Abiad and Yabroud is 22 lb. ¹³ Parcels for Lebanon exceeding 11 lb. not accepted for following offices: Ain-Zahita, Bairo, Falouha, Hammana, Koubayat, Maaser-el-Chouf, Ras-Baalback and Souk-el-Gharb. ¹⁴ French zone only. ¹⁵ Parcels for cities of Bagulo, Calocan, Cebu, Davao, Iloilo, Mandaluyong, Manila, Zamboanga, and municipality of Tacloban in Province of Leyte may weigh up to 44 lb. weight of parcels destined to other places, see Postal Bulletin of Oct. 12, 1950. ¹⁶ Limit to Lisbon is 22 lb. NOTE: For rates to countries not shown in this table, consult local postmaster. Leaders (....) indicate that there is no air-parcel-post service to the country.

The Postmaster General's staff consists of the Deputy Postmaster General, the Assistant Postmasters General, the Administrative Assistant to the Postmaster General, the Solicitor, the Chief Post Office

Inspector, the Executive Assistant to the Postmaster General, the Chief Clerk and Director of Personnel, the Comptroller, and the Purchasing Agent. The Deputy Postmaster is Chairman.

THE RISE OF THE UNITED STATES

by ARTHUR M. SCHLESINGER, SR.

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1. Under the English Flag

The land now comprehended within the United States once belonged to Spain, France, England, Holland and Sweden. Spain, colonizing from Mexico in the sixteenth and seventeenth centuries, expanded over most of the Gulf Coast, Texas and the border zone westward through California. France, moving down from Canada in the eighteenth century, annexed the Mississippi Valley from the Apalachians to the Rockies. Meanwhile, in the seventeenth century, the English began peopling the Atlantic shore, and finding the Dutch already established in the present New York and the Swedes in Delaware, seized their possessions.

Notwithstanding this varied international background, United States history has been largely the product of influences emanating from the seaboard communities. Unlike the Spanish and French, the English regarded their colonies as genuine extensions of the homeland, and the settlers sowed English customs, institutions and speech so thoroughly that they eventually spread everywhere. True, the transplanted ways underwent modification, but this arose from necessities imposed by a wilderness existence and, as time went on, from a growing sense of self-sufficiency.

Organized settlement began in 1607 at Jamestown, where the first representative assembly was set up in 1619. The Pilgrims followed at Plymouth in 1620, spearheading a much larger migration of Puritans into New England. Later in the century the Quakers occupied a midway region owned by William Penn, making Philadelphia their headquarters and fanning out in every direction. By 1700 all the thirteen colonies existed but the southernmost, Georgia, which came into being in 1733. The settlers crossed the ocean to escape economic, religious and political oppression and to start anew in a land of greater opportunity.

In time, other strains reinforced the original English population: French Huguenots, Scotch Irish, Germans and minor groups, including the Dutch and Swedes already on hand. African slaves, first introduced at Jamestown in 1619, were welcomed in all the colonies, though the economic need for them was greater in the South, and the system took deeper root there than elsewhere. The people in the North engaged mainly in small farming, fishing and commerce, the Southerners largely in plantation production. Everywhere the colonists practiced self-government. When they clashed with the English-appointed governors, the colonists usually

won out by withholding appropriations.

As the population penetrated farther inland, the settlers encountered the French guarding Canada and the eastern fringes of the Mississippi Valley. In a succession of wars (1689-1763), paralleling greater struggles between the parent nations abroad, France was finally ejected from North America and Britain's dominion extended to the Mississippi. Spain fell heir to the country west of the river, though some years later Napoleon was temporarily to reclaim it for France.

2. Birth of the Nation

With the removal of the Gallic menace the colonists felt less dependent upon the mother country militarily, and England's change from her former policy of "salutary neglect" aroused active resentment. A series of revenue measures, starting with the Sugar Act of 1764, provoked meetings of protest, nonimportation pacts and mob demonstrations in America. Colonial home rule was at stake, also freedom of trade, and the provincials appealed to the principle: "No taxation without representation." Parliament's action in 1774 penalizing all Massachusetts for the deed of a few in dumping dutied tea into Boston Harbor led to the first armed clash at Concord and Lexington on April 19, 1775; but a year and more passed before the patriots resolved upon the hazardous step of independence. The famous Declaration of July 4, 1776, penned by Thomas Jefferson for the Second Continental Congress, justified revolution as the only means to guarantee the "unalienable Rights" of "Life, Liberty and the pursuit of Happiness." Under George Washington as commander in chief the fighting shifted from New England into the middle states and then into the south. General Gates's victory at Saratoga on October 17, 1777, brought England's ancient enemy, France, into the war; just four years later the British yielded to the Allies at Yorktown. The Peace Treaty in 1783 recognized the United States as stretching to the Mississippi.

The infant, though born and baptized, had yet to be weaned. The league of states, formed under the Articles of Confederation in 1781, proved too weak either to deal effectively with foreign countries, or to raise necessary funds, or to ensure unrestricted domestic trade. Within the states, however, Revolutionary idealism prompted action to forbid primogeniture and tax-supported religions, and the Northern commonwealths abolished slavery, a prohibition which Congress's Ordinance of 1787 extended to the territory north of the Ohio. Feebleness of government, combined

with social disturbances culminating in Shays's Rebellion in Massachusetts, made sober men tremble for the sanctity of property rights and seemed to cloud the nation's future. The Federal Convention, summoned in 1787, designed a new framework after much wrangling between rival interests and sections.

The Constitution established a government of three separate and co-ordinate departments—legislative, executive and judicial—each endowed with adequate power, and each to serve as a check and balance on the others. Within its own sphere the general government was supreme, and it exerted its will not through state officials, as under the Articles of Confederation, but immediately upon individuals. Direct popular representation was limited to the House of Representatives, the Senate being chosen by the legislatures (a system which lasted till 1913), the President designated by Electors (who in practice, however, quickly lost their deliberative function), and the Supreme Court appointed by the President and Senate for life. Opposed in many states because of its centralizing and undemocratic features, the Constitution eventually won adoption on the assurance that a bill of rights would be added to preclude federal interference with civil liberties such as freedom of speech, the press and religion. The first ten amendments, in 1791, fulfilled the promise.

Perhaps no convention would have ratified the Constitution if it had been realized that an indivisible Union would ensue. The framers, engaged in the practical task of curing the defects of the Confederation government, strewed phrases through the document that had contradictory implications. On the basis of the text it was possible for equally honest men to maintain that the states were more powerful than the nation, or that the nation overtopped the states. At one time or other nearly every legislature, given what it considered sufficient provocation, asserted the right of nullification or secession. Short of such extreme doctrines, controversy began almost immediately over the question of whether the Constitution should be construed broadly to enhance the national authority or narrowly to lessen it.

Under George Washington, President from 1789 to 1797, the new government became a going concern. Congress, guided by Secretary of the Treasury Alexander Hamilton, buttressed the public credit by arranging to pay at par the national debt and the war-incurred state debts and by creating a United States Bank modeled upon the Bank of England. These measures, especially the last, alarmed Jefferson, veteran liberal and Washington's Secretary of State. Fearing that the legislation would build up a dangerous moneyed class, he urged a strict interpretation of the Con-

stitution in opposition to Hamilton's loose-construction views. The French Revolution widened the breach, for the Jeffersonian Democrats applauded as an upsurge of liberty what the Federalists dreaded as an irruption of chaos. But both men, knowing America's defenseless state, backed Washington's decision to maintain neutrality in France's war with England. Returned to power under John Adams, the Federalists in 1798, however, declared naval hostilities against France and passed the Alien and Sedition Acts to muzzle opposition criticism. Though Adams, defying his party, prevented a full-scale war, he lost the election of 1800 to Jefferson. The Federalists never saw office again.

3. Democracy and Nationalism

The farming interest, which Jefferson deemed the bulwark of free government, had steadily increased since the Revolution. As settlers trekked inland, new states joined the original thirteen: Vermont, Kentucky and Tennessee in the 1790's, with Ohio and others shortly to follow. Western pioneer life begot an intense individualism, fostered political and economic democracy, stimulated nationalism. In the South, by contrast, Eli Whitney's invention of the cotton gin in 1793 opened the way for plantation agriculture and Negro slavery to expand westward beyond the Mississippi. The growth of manufacturing in the Northeast introduced a third element into the scene. The rivalries of these sectional forces wove the principal strands of American history until the Civil War. Toward the mid-century the situation was further confused by the spread of manhood suffrage and a sudden mass immigration from Ireland and Germany.

Jefferson inaugurated the "Virginia Dynasty," his eight years giving way to two terms each of James Madison and James Monroe. He performed his greatest service by purchasing Louisiana from Napoleon in 1803, an act which, though violating his constitutional scruples, carried the flag to the Rockies and vastly enlarged the agricultural domain. With France and England again locked in conflict, depredations on American commerce gave constant provocation to war, but the peace-loving Jefferson applied economic sanctions in the form of an embargo keeping merchantmen at home. Such measures failed, however, and under Madison in 1812 Congress, goaded by the Warhawks, mostly Westerners, declared war on England. Unlike France, she had compounded her offenses by impressing American sailors and, moreover, lay exposed to land attack in Canada. But the assaults on Canada miscarried, and Britain's attempts at counter-invasion with veterans freed by Napoleon's defeat in 1814 fared little better. Unhappily, An-

drew Jackson's victory at New Orleans on January 8, 1815, occurred two weeks too late to affect the Peace Treaty of Ghent, which settled none of the prewar disputes.

Nevertheless the war experience greatly accelerated American nationalism. In 1816 Congress enacted the first protective tariff and chartered a new United States Bank on the model of Hamilton's. In 1819 the country acquired the Gulf region from Spain, who chose to sell rather than have it seized. In 1823 the President, prompted by successful revolutions in Latin America, proclaimed the Monroe Doctrine, warning Europe to keep hands off this new area of freedom.

Other events, however, prefigured growing sectional discord. Opposition to admitting Missouri as a slave state was ended in 1820 only by Congress's agreeing that the rest of the Louisiana Purchase north of the parallel marking her southern boundary should be free soil. Successive tariffs alienated Southerners as class legislation discriminating against their welfare. Touted by the astute South Carolinian, John C. Calhoun, they refurbished the doctrine of state rights as defensive armor. John Quincy Adams's administration (1825-1829) did nothing to improve conditions, and the advent of his successor, Jackson, precipitated a crisis.

Old Hickory, as indomitable in peace as in war, acted boldly against divisive tendencies, whether from the slavocracy or the money power. When South Carolina nullified the Tariff of 1832, he prepared for military action, whereupon the state accepted Congress's olive branch of a lower scale of duties. He smote financial privilege by destroying the Second United States Bank, which wielded monopolistic control over the nation's credit facilities. After eight years Jackson's lieutenant, Martin Van Buren, took over, but a business depression following the Panic of 1837 so discredited his administration that in 1840 the Whigs uproariously elected William Henry Harrison in the famous log-cabin campaign. He died after a month in office, however, and the Whigs fared hardly better with his unintended successor, John Tyler, whose strict-constructionist predilections foiled their plan to establish a third national bank.

Within the free states these years witnessed a ceaseless ferment of humanitarian agitation: crusades for public education, temperance, prison reform, labor's rights, women's rights. Humane people, viewing slavery as an anachronism and a sin, formed organizations to urge its abolition. The moderate-minded, content with demanding its exclusion from the territories, founded a series of unsuccessful parties, beginning with the election of 1840. The

South, frightened by these threats to its cherished institution, found little good in any of the movements and regarded the restless North with mounting apprehension.

4. Sectional Conflict

Western expansionist zeal plus the Southern desire for more slave territory elected James K. Polk over his Whig rival, Henry Clay, in 1844. When the outgoing Congress executed the Democratic pledge to annex Texas, Polk proceeded to high-pressure England into partitioning the jointly held Oregon country at the forty-ninth parallel, and in 1846, while that was still under way, contrived a war with Mexico to acquire California and the territory eastward to Texas. American forces quickly overran northern Mexico and California, but a fiercely contested march from Veracruz through the mountains to Mexico City proved necessary before Polk achieved his goal in the Treaty of Guadalupe Hidalgo early in 1848.

The conquests approximately completed the present continental boundaries. The immediate effect, however, was to arouse sectional dissension over the question of slavery in the new Southwest. Zachary Taylor, elected by the Whigs in 1848, died in office after sixteen months, leaving the crisis in the lap of Millard Fillmore. The Compromise of 1850, piloted through Congress by Henry Clay, admitted California as a free state, left slavery in Utah and New Mexico territories to future judicial determination, and disposed of other disputes. But the settlement soon turned into unsettlement, for Fillmore's Democratic successors, Franklin Pierce and James Buchanan, supported pro-Southern policies.

The Kansas-Nebraska Act of 1854, authorizing slavery by "popular sovereignty" in the country just west of Missouri and Iowa, outraged Northerners as a base repudiation of the historic Missouri Compromise. Guerrilla warfare followed in Kansas, while in the free states the old-time antislavery elements joined with dissident Whigs and Democrats to organize the Republican party. The Republicans insisted that slavery be kept out of all federal territories. Angry contests on the floors of Congress operated like a war of nerves, convincing each side that the other was plotting its ruin. John Brown's insane attempt in 1859 to incite a servile insurrection merely poured oil on the flames. When the Republicans in 1860 elected Abraham Lincoln over a divided Democratic opposition, eleven slave states, appealing to state-rights principles, seceded and established the Confederate States of America.

For the hostilities that ensued, the North possessed the long-run advantage

of superior economic resources and man power, but before these could come into play, the South hoped to win by military prowess and perhaps by the intervention of England, which needed Southern cotton. England, however, never went quite so far, and the Southern authorities failed also to reckon with the inspired leadership of President Lincoln, who taught his people that the preservation of the Union involved not only their country's future but the democratic hope everywhere. While the North went about establishing a blockade by sea, the Confederates under Robert E. Lee brilliantly repulsed repeated land attacks on their capital, Richmond, and countered with battles on Northern soil at Antietam in 1862 and Gettysburg in 1863. But in the west they steadily lost ground until the Union forces late in 1864 swept around the southern tip of the mountains into Lee's rear and, by a pinchers movement with Ulysses S. Grant before Richmond, brought final defeat the following April. As soon as military fortunes favored, Lincoln under his war powers proclaimed the emancipation of slaves in all unconquered states and districts, and the Thirteenth Amendment in 1865 universalized the decree. America at long last had caught up with the preamble of the Declaration of Independence.

Even prior to his re-election in 1864, Lincoln "with malice toward none" announced a plan to ease the return of the Southern states to their former place in the Union; but before much could be accomplished, his assassination in April, 1865, brought into office Andrew Johnson, who shared his views of reconstruction without his gifts of persuasion. Over Johnson's vetoes the radical Republicans adopted a punitive program. They imposed military rule upon the South, impeached and almost ousted the President, and exacted ratification of the Fourteenth and Fifteenth Amendments before readmitting the last states in 1870. These amendments were designed to make the freedman a full-fledged citizen and voter. Even so, federal bayonets kept Northern-controlled carpet-bag governments in power for several years more.

5. Business and Government

Already the Republicans were changing from a humanitarian party to one of conservative business. The war gave an immense stimulus to economic life, speeding the construction of railways, the exploitation of minerals and other resources, the development of large-scale manufacturing, the accumulation of wealth, and bringing to the fore great captains of industry and finance, who naturally turned for favors to the dominant party. Despite economic depressions after the Panics of 1873 and 1893, this alliance of business and politics

governed the country almost uninterruptedly for the rest of the century, putting successively into office Grant (for eight years), Rutherford B. Hayes, James A. Garfield, Chester A. Arthur (for Garfield's unexpired term), Benjamin Harrison and William McKinley (for two terms).

In the Hayes-Tilden election of 1876, however, the Republicans nearly came to grief, partly because of revelations of widespread graft in Grant's second administration, and partly because of disputed electoral returns from the surviving carpetbag states. A special commission, created by Congress, decided for Hayes by a strictly partisan vote. The Democrats actually won eight years later, the voters preferring Grover Cleveland to James G. Blaine, whom they suspected of political corruption. Cleveland, though defeated in 1888, triumphed again in 1892 largely because the Republicans had claimed too much for the beneficence of tariff protection. The Republicans avoided other disasters by harping upon Democratic disloyalty during the Civil War ("waving the bloody shirt") and by catering to the Northern veterans' vote with generous pensions.

Conservative Republicanism met its principal difficulties in Congress, where the Western members, supported usually by Southern Democrats, uneasily resisted capitalistic domination. The Farther West, peopling rapidly after the war, gave a fresh dimension to the nation. Thanks to the attractions of precious minerals, cattle raising and free homesteads, this last frontier yielded steadily to settled communities, and between 1876 and 1896 eight additional states entered the Union. A new sectionalism emerged in politics, for Western needs and aspirations differed at many points from those of the East. The wage earners, too, feared the growing power of Big Business, but despite mounting numbers they lacked political representation and hence concentrated on trade-union methods, forming the American Federation of Labor in 1881. The two depression periods produced violent strikes and upheavals. Labor, however, prevailed upon Congress to place restraints on immigration in order to discourage competition by underpaid workers, especially from Southern and Eastern Europe.

Legislative struggles nearly always pivoted on issues affecting the new industrial order. The problem of greenback inflation, arising from the war, was finally settled to Eastern satisfaction by the Resumption Act of 1875. The drive for higher and yet higher protection succeeded with occasional reverses until the Dingley Tariff in 1897 set a record. Congress under Western pressure took ineffective steps in 1887 and 1890 to regulate railways and business combinations, and it made some early concessions also to the Western de-

mand for free silver. During the Panic of 1893, however, Cleveland induced Congress to stop the inflation; and after the silverites, capturing the Democratic convention in 1896, failed to elect their nominee, William Jennings Bryan, the Republicans reduced silver to a minor coin and committed the country to the gold standard.

Foreign relations reflected similar tendencies, for the expanding industrial system demanded new markets, openings for investment and sources of raw materials. Cleveland withstood imperialistic sentiment, and in 1898 the McKinley administration intervened in the Cuban insurrection under the whip of popular anger at Spanish methods of repression and the explosion of the battleship *Maine* in Havana Harbor. Spain was quickly routed not only in the West Indies but also in her possessions off Asia. Though the "splendid little war" was prompted less by Wall Street than by a superheated sensational press, it bore fruit in the annexation of Puerto Rico, the Philippines and Guam, and brought businessmen further advantages through the quasi protectorate imposed on Cuba (later extended to other Caribbean countries). About the same time Hawaii and American Samoa were acquired, and Secretary of State John Hay's "open door" policy promised a growing trade with China. Theodore Roosevelt, raised to the presidency by McKinley's assassination in September, 1901, further advanced the cause by abetting a revolution against Colombia, thereby assuring the construction of the Panama Canal and much shorter distances within the colonial empire.

In domestic politics, however, Roosevelt aligned himself with the rising sentiment against business-dominated government, preaching with gusto the doctrine of the "square deal," and in his seven years breaking ground for later and more substantial advances. Despite party reactionaries he put teeth into the enforcement of the Antitrust Act of 1890, bullied Congress into tightening control over railroads and industrial monopolies, and initiated measures for conserving the nation's natural resources. William Howard Taft, his choice as successor, quietly pursued similar policies; but Taft's endorsement of the steep Payne-Aldrich Tariff together with other missteps so embittered the reformers that, failing to prevent his renomination in 1912, they organized the Progressive party to run their idol "Teddy" again. The Democrats, facing a divided opposition, elected their candidate, Woodrow Wilson.

Superbly endowed intellectually, and gifted with Jefferson's power to express democratic aspirations, Wilson proceeded with magisterial authority to climax the earlier efforts at reform. The Underwood Tariff enacted the lowest rates since the

Civil War; the Federal Reserve Act superseded an outworn national banking system; and the Clayton Act created the Federal Trade Commission to stop "unfair methods of competition." Two other measures, launched by popular demand during World War I, involved changes in the Constitution. The Eighteenth Amendment in 1920 enacted national prohibition, which ran its stormy course in thirteen years and required the Twenty-first for its undoing. The Nineteenth Amendment (1920) extended to all women the suffrage which in some states they already possessed.

6. World War and After

With America a neutral in 1914 when the European struggle began, the administration's chief energies turned to the protection of maritime rights. Wilson and his countrymen, hating war and traditionally isolationist, only gradually perceived the threat to national security if a militaristic Germany should supplant Britain as mistress of the Atlantic; but Berlin's revival of ruthless submarine operations a few months after Wilson's second election clarified men's minds. Congress, stirred by his appeal that "The world must be made safe for democracy," declared war on April 6, 1917. The government, racing against time, swiftly put the nation on a battle footing, enacting universal conscription, taking over the railways, and regimenting industry, labor and agriculture. It was the country's introduction to total war. In the summer of 1918 Yankee troops under General John J. Pershing helped repulse a great German drive on the Marne and in September shared in the mighty Meuse-Argonne counteroffensive, which ended the struggle on November 11.

At the Paris Peace Conference, Wilson fought stubbornly for the democratic settlement he had earlier outlined under Fourteen Points, but gained principally his proposal of a League of Nations, which he saw as a sort of continuing peace conference. At home the Republican-controlled Senate, whipping up isolationist sentiment, completed his rout, for when Wilson spurned efforts to amend the treaty, that body under the two-thirds requirement rejected it by a minority vote. The tide was turning from wartime idealism to what Warren G. Harding, overwhelmingly elected by the Republicans in 1920, called "normalcy." Disclosures of corruption in high government circles hastened Harding's death, elevating Calvin Coolidge, who renewed his presidency by election a year later and was followed in 1929 by Herbert Hoover. All three, while keeping out of the League, nevertheless co-operated with some of its minor activities and, on their own, concluded a number of collective treaties for temporary naval disarmament and the outlawry of war.

These part-way steps were offset, however, by an upsurge of economic nationalism: a skyward trend of protective duties, a relaxing of controls over giant corporations, and a quota limitation on European immigration. "Rugged individualism" produced the dizzyest prosperity the country had ever known, only to collapse in 1929 into the worst depression ever known. Hoover, striving vainly to repair the damage, met abject defeat in 1932 at the hands of the socially minded Franklin D. Roosevelt, who pledged a "new deal" by the Democrats. Under Roosevelt's thrilling leadership Congress, casting precedent to the winds, voted billions for relief, "primed the pump" of business and agriculture to hasten recovery, and inaugurated long-range reforms to increase foreign trade through reciprocal tariff reductions, reorganize banking practices, safeguard trade-union activities, guarantee minimum wages, destroy electrical holding companies, and provide for social insurance and a government-planned development of the Tennessee Valley.

7. World War Again

Toward Latin America Franklin Roosevelt adopted the "good neighbor" policy, relinquishing the Caribbean protectorates and transforming the Monroe Doctrine into a mutual nonaggression pact. As further evidence of the retreat from imperialism, Congress made provision for Philippine freedom in 1946. Relations with other parts of the world, however, posed increasing problems. As the Axis dictators and their Oriental partner, Japan, began overrunning weaker peoples, Congress under isolationist influences directed Roosevelt, against his wish, to embargo munition sales to both victim and assailant; but public opinion forced a lifting of the ban after England and France in September, 1939, took up arms against Nazi aggression. Hitler's subjugation of France the following June emboldened Roosevelt to more active steps, for crippled England now alone defended the Atlantic from totalitarian domination. Congress at his behest voted vast sums for rearmament and adopted peacetime conscription, and Roosevelt, without consulting Congress, gave England fifty destroyers in exchange for a string of naval bases off North America.

Isolationists, mostly Republicans, denounced Roosevelt's "warmongering," while he, still clinging to measures "short of war," stressed insistently the gathering dangers to the American way of life—to freedom of speech, freedom of worship, freedom from want and freedom from fear. The people responded by choosing him in 1940 as their first third-term President. In March, 1941, he secured adoption of the lend-lease plan and soon began using the navy to safeguard the supplies en route.

Before matters reached a crisis, the Japanese war lords, irked by America's stiffening attitude toward their own conquests and gambling upon an Axis victory in Europe, treacherously attacked Pearl Harbor on December 7, clearing the way for the seizure of Guam, the Philippines and two of the Aleutians, as well as many Dutch and British holdings. Within four days Germany and Italy declared war against the United States.

America quickly girded herself for the mightiest struggle in history. Enlarging upon Wilson's wartime methods, the government completely reorganized the national economy for an unparalleled output of arms and food. By summer, sea, land and air forces were attacking the enemy all over the globe. In May, 1943, after bitter fighting, Anglo-American armies expelled the Axis from North Africa, then invaded southern Italy and forced the government's submission in September, though the Nazis there kept up the fight. Landing in Normandy in June, 1944, the Allies under Dwight D. Eisenhower's supreme command battered their way through France and across the Rhine, while the Russians pounded the Nazis from the east. On May 7, 1945, Germany unconditionally surrendered. The Pacific war was no less desperately contested; but the Allies, based on Australia, slowly won control of the sea and, pressing onward from island to island, hastened Japan's unconditional surrender on August 14, 1945, by losing the atomic bomb and by Soviet Russia's last-minute entry into the conflict.

World War II was at an end, but what would be the nature of the peace? The Atlantic Charter, signed in August, 1941, by Roosevelt and Churchill and later agreed to by all the Allies, pledged them against "aggrandizement, territorial or other," but subsequent conferences by the major powers—at Cairo, Teheran, Yalta, Potsdam and elsewhere—foreshadowed a different outcome. Russia in particular demanded substantial territorial advantages. In July, 1946, the Allies gathered at Paris to draw up terms for Italy and the Axis satellites: Rumania, Bulgaria, Hungary and Finland. Germany and Japan, under armed occupation, were reserved for later handling.

Without waiting for final military victory, fifty countries, at Roosevelt's initiative and with bipartisan support in America, had set up a successor to the League: the United Nations. Roosevelt, elected a fourth time in 1944, died suddenly on April 12, 1945, several weeks too soon to assist in framing the charter at San Francisco.

His successor, Harry S. Truman, urged a broadened New Deal under the name Fair Deal but met with limited success, partly because of a coalition of Republi-

cans and Southern Democrats in Congress, partly because of mounting world crises. His tax program, accentuated by growing national-defense requirements, was considerably altered; and his labor program was defeated by the enactment, over his veto, of the Taft-Hartley law. In spite of strong Republican opposition, the rise of a States' Rights Democratic party in the South, and poll predictions of certain defeat, Truman was the people's choice in 1948. The Twenty-second Amendment, ratified during his second administration and limiting Presidents to two terms or ten years, did not apply to him.

Domestic affairs became secondary to increasingly acute world problems involving communism. As more nations came under Soviet domination, the concept of "One World" dimmed. A new policy, designed to contain communism within its existing limits and to prevent its spread by aggression, was evolved. Under this, the United States gave military and economic aid to Greece and Turkey, implemented the Marshall Plan with billions of dollars to speed European recovery and to halt the growth of communism, fostered the regeneration of Western Germany, negotiated the North Atlantic Defense Pact, and assisted Western Europe militarily. When Tito and Yugoslavia broke with the U.S.S.R. and the

Cominform, the United States rendered economic aid.

In advancing its policies both before and after these American-sponsored measures, Moscow embarked upon the Cold War. Its blockade of Berlin necessitated the successful Anglo-American Airlift. It backed Communist activities in European countries, nursed rebellions in Asia and sabotaged the United Nations by its use of the veto. A peak of its offensive was reached when it supported North Korea and Red China with arms in their invasion of South Korea. This action caused the United States to co-operate with the United Nations in a massive police action, under General Douglas MacArthur, against the Reds. In spite of Russian opposition, a peace treaty was also concluded with Japan. The Republicans, abandoning the World War II bipartisan foreign policy, attacked the State Department and Secretary Dean Acheson, and seized upon Truman's recall of MacArthur for insubordination as the occasion for a senatorial investigation of Far Eastern policy.

During the tense period of the Cold War, American Communist-party leaders were convicted of conspiring against the United States, and several persons were found guilty of supplying Russia with atom-bomb secrets.

Definitions

Bicameral System—That form of government which consists of two separate houses or chambers in which the concurrence of both is necessary to the enactment of legislation. Adopted to act as a check upon hasty or ill-considered legislation.

Bloc—Originally a French term meaning mass and adopted in America to apply to a group of Congressmen who band together beyond party allegiances for a common cause. The most popularized bloc in America is the Agricultural Bloc.

Cloture (or closure)—A means of putting a stop to "filibustering" in which a two-thirds vote by the Senate followed by a petition of at least 16 members limits debate upon a bill to one hour and forces thereby an early vote.

Dark Horse—The emergence of a politically unknown figure in a closely contested nomination to receive the laurels. Some famous dark horses were Polk, Harding and Wilkie.

Diplomatic Immunity—The exemption of a foreign diplomat, his staff and premises, from civil suit, arrest, taxation, search or seizure.

Gerrymander—A practice of laying out electoral districts to insure the majority of votes for the party in power. The term is a corruption of a district which had the

appearance of a salamander but which was called after the name of the then Governor Elbridge Gerry of Massachusetts in 1812.

Proportional Representation—A system of minority representation in proportion to the relative strength of a group. Voters indicate their choice by number in order of preference in such a manner that each party gets approximately the same proportion of legislators as their party vote bears to the total vote cast.

Recall—A procedure for the removal of a public official from his office by a vote of the people, and usually only after he has served at least six months of his office.

Referendum—The process of submitting to the people for vote any change in the Constitution, whether it be of the State or the Nation.

Senatorial Courtesy—A tacit agreement between the members of the Senate to follow the lead of those Senators representing the State in approvals or disapprovals of Presidential nominations for vacant positions. The rule is not applied to cabinet positions.

Unicameral—Pertaining to a legislative body that has only one body. In the United States the only State that operates under the Unicameral system is Nebraska.

HOW A PRESIDENT IS ELECTED

Selection of Delegates

THE CHOICE OF A PRESIDENTIAL candidate involves ponderous machinery. First, at full dress meetings some months before, the national committees decide the time and place of the conventions. Before the conventions meet, each party selects delegates from every state and territory.

Democrats allow 2 delegates with 1 vote apiece for each Senator, or 4 delegates with $\frac{1}{2}$ vote apiece. Two delegates are allowed for each Congressman. Also, a bonus vote of 4 is allowed each state that went Democratic in 1948. These states may elect 8 delegates with $\frac{1}{2}$ vote each. Six delegates each are allowed to Puerto Rico, D. C., Alaska, and Hawaii, and 2 each to the Canal Zone and the Virgin Islands.

Republicans allow each state 4 delegates-at-large and 2 for each Representative-at-large, as well as 6 additional delegates if the state went Republican in the previous Presidential election or, in that election or a subsequent one held prior to the next Republican National Convention, elects a Republican U. S. Senator or Governor. In addition, each Congressional district within the state that cast 2,000 Republican votes at the last election is permitted a delegate, with an additional delegate if that district cast 10,000 votes. Republicans further allow 4 delegates-at-large for Alaska, 6 each for D. C. and Hawaii, and 4 additional for Hawaii if the Delegate to Congress elected at the last preceding election is a Republican. There are 3 delegates-at-large from Puerto Rico, 1 from the Virgin Islands.

Each party provides for the selection of an equal number of alternates to serve in the absence of regular delegates. Delegates are chosen differently in different states, mostly by party primary but in some cases by party conventions.

The Conventions

At each convention a temporary chairman is chosen, usually to deliver the party's keynote speech. After a credentials committee seats the various delegates, a permanent chairman is elected. The convention then votes on a platform, drawn up by the platform committee.

By the third or fourth day, Presidential nominations begin. The chairman calls the roll of states alphabetically. A state may place a candidate in nomination or yield to another state.

Voting, again alphabetically by voice vote, begins after all nominations have been made and seconded. A simple majority is required in each party, although this may require many ballots.

Finally, the Vice Presidential candidate is selected. Although there is no law say-

ing that the candidates *must* come from different states, it is practically necessary for this to be the case. Otherwise, according to the Constitution (see Amendment XII), electors from that state could vote for only one of the candidates and would have to cast their other vote for some person of another state. This could result in the awkward situation of a Presidential candidate's receiving a majority electoral vote and his running mate's failing to—or vice versa.

The Electoral College

The next step in the process is the nomination of electors in each state, according to its laws. These electors must not be Federal office holders. In the November election, the voters cast their votes for electors, not for President. In some states, the ballots include only the names of the Presidential and Vice Presidential candidates; in others, they include only names of the electors. Nowadays, it is rare for electors to be split between parties. The last such occurrence was in Tennessee in 1948; the last before that, in West Virginia in 1916. On three occasions (1824, 1876 and 1888), the candidate with the largest popular vote failed to obtain an electoral-vote majority.

Each state has as many electors as it has United States Senators and members of the House of Representatives. There are 96 Senators and 435 Representatives, a total of 531 electoral votes, of which 266 are needed to win.

On the first Monday after the second Wednesday in December, the electors cast their votes in their respective state capitols. Constitutionally they may vote for someone other than the party candidate but practically they cannot since they are pledged to one party and its candidate on the ballot. Should the Presidential or Vice Presidential candidate die during the interval between the November popular vote and the December meetings, new choices may be made to fill the tickets by the national committees or by conventions called by them. The votes of the electors, certified by the states, are sent to Congress where the President of the Senate opens the certificates and has them counted in the presence of both Houses in January. The new President is inaugurated at noon on January 20.

Should no candidate receive a majority of the electoral vote for President, the House of Representatives chooses a President from among the three highest candidates, voting, not as individuals, but as states, with a majority (now 25) needed to elect. Should no Vice Presidential candidate obtain the majority, the Senate, voting as individuals, chooses from the highest two.

U. S. National Conventions Since 1856

Date	Party	Where held	Nominated	Vote
June 17, 1856	R	Philadelphia	John C. Frémont	520
June 2, 1856	D	Cincinnati	James Buchanan	296
May 16, 1860	R	Chicago	Abraham Lincoln	364
April 23, 1860	D	Charleston & Baltimore	S. A. Douglas	181
June 7, 1864	R	Baltimore	Abraham Lincoln	Unanimous
Aug. 29, 1864	D	Chicago	Geo. B. McClellan	202½
May 20, 1868	R	Chicago	U. S. Grant	Unanimous
July 4, 1868	D	New York City	Horatio Seymour	Unanimous
June 5, 1872	R	Philadelphia	U. S. Grant	Unanimous
June 9, 1872	D	Baltimore	Horace Greeley	688
June 14, 1876	R	Cincinnati	R. B. Hayes	384
June 28, 1876	D	St. Louis	S. J. Tilden	508
June 2, 1880	R	Chicago	J. A. Garfield	399
June 23, 1880	D	Cincinnati	W. S. Hancock	705
June 3, 1884	R	Chicago	J. G. Blaine	541
July 11, 1884	D	Chicago	Grover Cleveland	683
June 19, 1888	R	Chicago	Benjamin Harrison	544
June 6, 1888	D	St. Louis	Grover Cleveland	By acclamation
June 7, 1892	R	Minneapolis	Benjamin Harrison	535½
June 21, 1892	D	Chicago	Grover Cleveland	617½
June 16, 1896	R	St. Louis	William McKinley	661½
July 7, 1896	D	Chicago	William J. Bryan	500
June 19, 1900	R	Philadelphia	William McKinley	Unanimous
July 4, 1900	D	Kansas City	William J. Bryan	By acclamation
June 21, 1904	R	Chicago	Theodore Roosevelt	Unanimous
July 6, 1904	D	St. Louis	Alton B. Parker	678
June 16, 1908	R	Chicago	William H. Taft	702
July 7, 1908	D	Denver	William J. Bryan	892½
June 18, 1912	R	Chicago	William H. Taft	561
June 25, 1912	D	Baltimore	Woodrow Wilson	990
June 7, 1916	R	Chicago	Charles E. Hughes	949½
June 14, 1916	R	St. Louis	Woodrow Wilson	By acclamation
June 8, 1920	R	Chicago	Warren G. Harding	692½
June 28, 1920	D	San Francisco	James M. Cox	732½
June 10, 1924	R	Cleveland	Calvin Coolidge	1,065
June 24, 1924*	D	New York City	John W. Davis	839†
June 12, 1928	R	Kansas City	Herbert Hoover	837
June 26, 1928	D	Houston	Alfred E. Smith	849½
June 14, 1932	R	Chicago	Herbert Hoover	1,126½
June 27, 1932	D	Chicago	F. D. Roosevelt	945
June 9, 1936	R	Cleveland	Alfred M. Landon	984
June 23, 1936	D	Philadelphia	F. D. Roosevelt	By acclamation
June 24, 1940	R	Philadelphia	Wendell L. Willkie	Unanimous
July 15, 1940	D	Chicago	F. D. Roosevelt	Unanimous
June 26, 1944	R	Chicago	Thomas E. Dewey	1,056
July 19, 1944	D	Chicago	F. D. Roosevelt	1,086-90
June 21, 1948	R	Philadelphia	Thomas E. Dewey	1,094-0
July 12, 1948	D	Philadelphia	Harry S. Truman	947½-263½
July 17, 1948	(†)	Birmingham	J. Strom Thurmond	By acclamation
July 22, 1948	P	Philadelphia	Henry A. Wallace	By acclamation
July 7, 1952	R	Chicago	Dwight D. Eisenhower	845-361
July 21, 1952	D	Chicago	Adlai E. Stevenson	By acclamation

*In session until July 10, 1924. † Nominated on 103d ballot. ‡ States' Rights delegates from 13 Southern states.

Earlier Conventions

The first national nominating convention was held by the Antimasonic party on Sept. 26, 1831, in Baltimore. On Dec. 12 of the same year, the National Republican party (which was to become the Whig party about 1834) held a national convention in Baltimore and nominated Clay and Sergeant. On May 21, 1832, the Democratic party held a national convention in Baltimore to nominate a candidate for Vice President to run with Jack-

son. Martin Van Buren was the nominee.

Up to the disappearance of the Whig party after its bad defeat in 1852, Whig conventions were held in Harrisburg, Pa., in 1839, in Baltimore in 1844 and 1852, and in Philadelphia in 1843; none was held in 1836; instead regional meetings placed three anti-Jacksonian candidates on the ballot.

Other Democratic conventions were held in Baltimore in 1835, 1840, 1844, 1848, 1852.

Presidential Elections, 1789 to 1948

The Constitution does not provide for the popular election of either the President or Vice President. It merely states that they shall be chosen by electors who shall be chosen in a manner prescribed by the state legislatures. No set of popular vote returns is complete or entirely significant until 1872, because that was the first election in which all electors were chosen by popular vote. By referring to the returns in 1876 and 1888, it can be seen that the candidate with the greatest popular vote is not necessarily elected.

Year	Presidential candidates	Party	Electoral vote	Year	Presidential candidates	Party	Electoral vote
1789 ^{1,2}	George Washington	(no party)	69	1796 ¹	John Adams	Federalist	71
	John Adams	(no party)	34		Thomas Jefferson	Dem.-Rep.	68
	Scattering	(no party)	35		Thomas Pinckney	Federalist	59
	Votes not cast		8		Aaron Burr	Dem.-Rep.	30
1792 ¹	George Washington	Federalist	132	1800 ^{1,3}	Scattering		48
	John Adams	Federalist	77		Thomas Jefferson	Dem.-Rep.	73
	George Clinton	Anti-Federalist	50		Aaron Burr	Dem.-Rep.	73
	Thomas Jefferson	Anti-Federalist	4		John Adams	Federalist	65
	Aaron Burr	Anti-Federalist	1		Charles C. Pinckney	Federalist	64
	Votes not cast		6		John Jay	Federalist	1

¹ For the original method of electing the President and the Vice President, see Article II, Section 1, of the Constitution. ² Only 10 states participated in the election. The New York legislature chose no electors, and North Carolina and Rhode Island had not yet ratified the Constitution. ³ As Jefferson and Burr were tied, the House of Representatives chose the President. In a vote by states, 10 votes were cast for Jefferson and 4 for Burr. Two votes were not cast.

Year	Presidential candidates	Party	Electoral vote	Vice-presidential candidates	Party	Electoral vote
1804 ¹	Thomas Jefferson	Dem.-Rep.	162	George Clinton	Dem.-Rep.	162
	Charles C. Pinckney	Federalist	14	Rufus King	Federalist	14
1808	James Madison	Dem.-Rep.	122	George Clinton	Dem.-Rep.	113
	Charles C. Pinckney	Federalist	47	Rufus King	Federalist	47
	George Clinton	Dem.-Rep.	6	John Langdon	Ind. (no party)	9
	Votes not cast		1	James Madison	Dem.-Rep.	3
1812	James Madison	Dem.-Rep.	128	James Monroe	Dem.-Rep.	3
	De Witt Clinton	Federalist	89	Votes not cast		1
	Votes not cast		1	Elbridge Gerry	Dem.-Rep.	131
1816	James Monroe	Dem.-Rep.	183	Jared Ingersoll	Federalist	86
	Rufus King	Federalist	34	Votes not cast		1
	Votes not cast		4	Daniel D. Tompkins	Dem.-Rep.	183
				John E. Howard	Federalist	22
1820	James Monroe	Dem.-Rep.	231	James Ross	Ind. (no party)	5
	John Quincy Adams	Ind. (no party)	1	John Marshall	Federalist	4
	Votes not cast		3	Robert G. Harper	Ind. (no party)	3
				Votes not cast		4
				Daniel D. Tompkins	Dem.-Rep.	218
				Richard Stockton	Ind. (no party)	8
1824 ¹	John Quincy Adams	(no party)	84	Daniel Rodney	Ind. (no party)	4
	Andrew Jackson	(no party)	99	Richard Rush	Ind. (no party)	1
	William H. Crawford	(no party)	41	Robert G. Harper	Ind. (no party)	1
	Henry Clay	(no party)	37	Votes not cast		3
				John C. Calhoun	(no party)	182
				Nathan Sanford	(no party)	30
1828	Andrew Jackson	Democratic	178	Nathaniel Macon	(no party)	24
	John Quincy Adams	Natl. Rep.	83	Andrew Jackson	(no party)	13
				Martin Van Buren	(no party)	9
1832	Andrew Jackson	Democratic	219	Henry Clay	(no party)	2
	Henry Clay	Natl. Rep.	49	Votes not cast		1
	John Floyd	Ind. (no party)	11	John C. Calhoun	Democratic	171
	William Wirt ²	Antimasonic	7	Richard Rush	Natl. Rep.	83
	Votes not cast		2	William Smith	Democratic	7
				Martin Van Buren	Democratic	189
1836	Martin Van Buren	Democratic	170	John Sergeant	Natl. Rep.	49
	William H. Harrison	Whig	73	Henry Lee	Ind. (no party)	11
	Hugh L. White	Whig	26	Amos Ellmaker	Antimasonic	7
	Daniel Webster	Whig	14	William Wilkins	Ind. (no party)	30
	W. P. Mangum	Ind. (no party)	11	Votes not cast		2
				Richard M. Johnson ⁴	Democratic	147
				Francis Granger	Whig	77
				John Tyler	Democratic	47
				William Smith	Ind. (no party)	23

Year	Presidential candidates	Party	Electoral vote	Vice-presidential candidates	Party	Electoral vote
1840	William H. Harrison ^a	Whig	234	John Tyler	Whig	234
	Martin Van Buren	Democratic	60	Richard M. Johnson	Democratic	48
				L. W. Tazewell	Ind. (no party)	11
				James K. Polk	Democratic	1
1844	James K. Polk	Democratic	170	George M. Dallas	Democratic	170
	Henry Clay	Whig	105	Theo. Frelinghuysen	Whig	105
1848	Zachary Taylor ^a	Whig	163	Millard Fillmore	Whig	163
	Lewis Cass	Democratic	127	William O. Butler	Democratic	127
1852	Franklin Pierce	Democratic	254	William R. King	Democratic	254
	Winfield Scott	Whig	42	William A. Graham	Whig	42
1856	James Buchanan	Democratic	174	John C. Breckinridge	Democratic	174
	John C. Frémont	Republican	114	William L. Dayton	Republican	114
	Millard Fillmore	American ⁷	8	A. J. Donelson	American ⁷	8
1860	Abraham Lincoln	Republican	180	Hannibal Hamlin	Republican	180
	John C. Breckinridge	Democratic	72	Joseph Lane	Democratic	72
	John Bell	Const. Union	39	Edward Everett	Const. Union	39
	Stephen A. Douglas	Democratic	12	H. V. Johnson	Democratic	12
1864	Abraham Lincoln ^a	Republican	212	Andrew Johnson	Republican	212
	George B. McClellan	Democratic	21	G. H. Pendleton	Democratic	21
1868	Ulysses S. Grant	Republican	214	Schuyler Colfax	Republican	214
	Horatio Seymour	Democratic	80	Francis P. Blair, Jr.	Democratic	80
	Votes not counted ^a		23	Votes not counted ^a		23

¹ The first election in which the electors voted for President and Vice President on separate ballots. (See Amendment XII to the Constitution.) ² As no candidate had an electoral-vote majority, the House of Representatives chose the President from the first three. In a vote by states, 13 votes were cast for Adams, 7 for Jackson, and 4 for Crawford. ³ The Antimasonic party, on Sept. 26, 1831, was the first party to hold a nominating convention to choose candidates for President and Vice President. ⁴ As Johnson did not have an electoral-vote majority, the Senate chose him 33-14 over Granger, the others being legally out of the race. ⁵ Harrison died Apr. 4, 1841, and Tyler succeeded him Apr. 6. ⁶ Taylor died July 9, 1850, and Fillmore succeeded him July 10. Also known as the Know-Nothing party. ⁷ Lincoln died Apr. 15, 1865, and Johnson succeeded him the same day. ⁸ 23 Southern electoral votes were excluded.

Year	Presidential candidates	Party	Electoral vote	Popular vote ¹	Vice-presidential candidates and party
1872	Ulysses S. Grant	Republican	286	3,597,132	Henry Wilson—R
	Horace Greeley	Dem., Liberal Rep.	(?)	2,834,125	B. Gratz Brown—D, LR—(47)
	Thomas A. Hendricks	Democratic	42		Scattering—(19)
	B. Gratz Brown	Dem., Liberal Rep.	18		Votes not counted—(14)
	Charles J. Jenkins	Democratic	2		
	David Davis	Democratic	1		
1876 ³	Votes not counted		17		
	Rutherford B. Hayes	Republican	185	4,033,768	William A. Wheeler—R
	Samuel J. Tilden	Democratic	184	4,285,992	Thomas A. Hendricks—D
1880	Peter Cooper	Greenback	0	81,737	Samuel F. Cary—G
	James A. Garfield ⁴	Republican	214	4,449,053	Chester A. Arthur—R
	Winfield S. Hancock	Democratic	155	4,442,035	William H. English—D
	James B. Weaver	Greenback	0	308,578	B. J. Chambers—G
1884	Grover Cleveland	Democratic	219	4,911,017	Thomas A. Hendricks—D
	James G. Blaine	Republican	182	4,848,334	John A. Logan—R
	Benjamin F. Butler	Greenback	0	175,370	A. M. West—G
	John P. St. John	Prohibition	0	150,369	William Daniel—P
1888	Benjamin Harrison	Republican	233	5,440,216	Levi P. Morton—R
	Grover Cleveland	Democratic	168	5,538,233	A. G. Thurman—D
	Clinton B. Fisk	Prohibition	0	249,506	John A. Brooks—P
	Alson J. Streeter	Union Labor	0	146,935	Charles E. Cunningham—UL
1892	Grover Cleveland	Democratic	277	5,556,918	Adlai E. Stevenson—D
	Benjamin Harrison	Republican	145	5,176,108	Whitelaw Reid—R
	James B. Weaver	People's ⁵	22	1,041,028	James G. Field—Peo
	John Bidwell	Prohibition	0	264,133	James B. Cranfill—P
1896	William McKinley	Republican	271	7,035,638	Garret A. Hobart—R
	William J. Bryan	Dem., People's ⁵	176	6,467,946	Arthur Sewall—D—(149)
					Thomas E. Watson—Peo—(27)
	John M. Palmer	Natl. Dem.	0	133,148	Simon B. Buckner—ND
	Joshua Levering	Prohibition	0	132,007	Hale Johnson—P

Year	Presidential candidates	Party	Electoral vote	Popular vote ¹	Vice-presidential candidates and party
1900	William McKinley ^a	Republican	292	7,219,530	Theodore Roosevelt—R
	William J. Bryan	Dem., People's ^a	155	6,358,071	Adlai E. Stevenson—D, Peo
	John G. Woolley	Prohibition	0	208,914	Henry B. Metcalf—P
	Eugene V. Debs	Social Democratic	0	94,768	Job Harriman—SD
1904	Theodore Roosevelt	Republican	336	7,628,834	Charles W. Fairbanks—R
	Alton B. Parker	Democratic	140	5,084,491	Henry G. Davis—D
	Eugene V. Debs	Socialist	0	402,400	Benjamin Hanford—S
	Silas C. Swallow	Prohibition	0	258,536	George W. Carroll—P
	Thomas E. Watson	People's	0	117,183	Thomas H. Tibbles—Peo
1908	William H. Taft	Republican	321	7,679,006	James S. Sherman—R
	William J. Bryan	Democratic	162	6,409,106	John W. Kern—D
	Eugene V. Debs	Socialist	0	420,820	Benjamin Hanford—S
	Eugene W. Chafin	Prohibition	0	253,840	Aaron S. Watkins—P
	Thomas L. Hisgen	Independence	0	82,872	John T. Graves—I
1912	Woodrow Wilson	Democratic	435	6,286,214	Thomas R. Marshall—D
	Theodore Roosevelt	Progressive	88	4,126,020	Hiram Johnson—Prog
	William H. Taft	Republican	8	3,483,922	Nicholas M. Butler—R ²
	Eugene V. Debs	Socialist	0	897,011	Emil Seidel—S
	Eugene W. Chafin	Prohibition	0	206,275	Aaron S. Watkins—P
1916	Woodrow Wilson	Democratic	277	9,129,605	Thomas R. Marshall—D
	Charles E. Hughes	Republican	254	8,538,221	Charles W. Fairbanks—R
	A. L. Benson	Socialist	0	585,113	G. R. Kirkpatrick—S
	J. Frank Hanly	Prohibition	0	220,506	Ira Landrith—P
1920	Warren G. Harding ^a	Republican	404	16,152,200	Calvin Coolidge—R
	James M. Cox	Democratic	127	9,147,353	Franklin D. Roosevelt—D
	Eugene V. Debs	Socialist	0	917,799	Seymour Steadman—S
	P. P. Christensen	Farmer-Labor	0	265,411	Max S. Hayes—FL
	Aaron S. Watkins	Prohibition	0	189,408	D. Leigh Colvin—P
1924	Calvin Coolidge	Republican	382	15,725,016	Charles G. Dawes—R
	John W. Davis	Democratic	136	8,385,586	Charles W. Bryan—D
	Robert M. LaFollette	Progressive, Socialist	13	4,822,856	Burton K. Wheeler—Prog S
1928	Herbert Hoover	Republican	444	21,392,190	Charles Curtis—R
	Alfred E. Smith	Democratic	87	15,016,443	Joseph T. Robinson—D
	Norman Thomas	Socialist	0	267,420	James H. Maurer—S
1932	Franklin D. Roosevelt	Democratic	472	22,821,857	John N. Garner—D
	Herbert Hoover	Republican	59	15,761,841	Charles Curtis—R
	Norman Thomas	Socialist	0	884,781	James H. Maurer—S
	William Z. Foster	Communist	0	102,991	James W. Ford—C
	William D. Upshaw	Prohibition	0	81,869	Frank S. Regan—P
1936	Franklin D. Roosevelt	Democratic	523	27,751,597	John N. Garner—D
	Alfred M. Landon	Republican	8	16,679,583	Frank Knox—R
	William Lemke	Union	0	882,479	Thomas C. O'Brien—U
	Norman Thomas	Socialist	0	187,720	George Nelson—S
	Earl Browder	Communist	0	80,159	James W. Ford—C
1940	Franklin D. Roosevelt	Democratic	449	27,244,160	Henry A. Wallace—D
	Wendell L. Willkie	Republican	82	22,305,198	Charles L. McNary—R
	Norman Thomas	Socialist	0	100,264	Maynard C. Krueger—S
1944	Franklin D. Roosevelt ^a	Democratic	432	25,602,504	Harry S. Truman—D
	Thomas E. Dewey	Republican	99	22,006,285	John W. Bricker—R
	Norman Thomas	Socialist	0	80,426	Darlington Hoopes—S
1948	Harry S. Truman	Democratic	303	24,105,695	Alben W. Barkley—D
	Thomas E. Dewey	Republican	189	21,969,170	Earl Warren—R
	J. Strom Thurmond	States' Rights Dem.	39	1,169,021	Flelding L. Wright—SR
	Henry A. Wallace	Progressive	0	1,156,103	Glen Taylor—Prog
	Norman Thomas	Socialist	0	139,009	Tucker P. Smith—S
	Claude A. Watson	Prohibition	0	103,216	Dale Learn—Proh

¹ For those candidates receiving over 75,000 votes. ² Greeley died Nov. 29, 1872, before his 66 electors voted. In the electoral balloting for President, 63 of Greeley's votes were scattered among Hendricks, Brown, Jenkins and Davis; the other 3, included in "Votes not counted," were cast for Greeley by electors from Georgia. This was the first election in which every state chose its electors by popular vote. ³ After the voting of the electoral college, Tilden had 184 undisputed votes, and Hayes 163. However, 22 other votes were in doubt, because two sets of electoral ballots were received from South Carolina, Louisiana, Florida and Oregon. For each of the three Southern states, one set was completely Democratic, the other completely Republican. For Oregon, one set gave all 3 of the state's votes to Hayes, the other gave one of the votes to Tilden. To settle the dispute, Congress created an Electoral Commission on Jan. 29, 1877. This Commission, consisting of 5 Supreme Court justices, 5 senators and 5 representatives (8 Republicans and 7 Democrats), gave the 22 votes in question to Hayes. ⁴ Garfield died Sept. 19, 1881, and Arthur succeeded him Sept. 20. ⁵ The members of the People's party were known as Populists. ⁶ McKinley died Sept. 14, 1901, and Roosevelt succeeded him the same day. ⁷ James S. Sherman, Republican candidate for Vice President, died Oct. 30, 1912, and succeeded him the same day. ⁸ Harding died Aug. 2, 1923, and Coolidge succeeded him Aug. 3. ⁹ Roosevelt died Apr. 12, 1946, and Truman succeeded him the same day. NOTE: For 1952 election, see index.

Presidential Election of 1928

Source: Secretaries of State of the several states from records filed with the House of Representatives.

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Republican—Herbert Hoover, California; Charles Curtis, Kansas.

Democratic—Alfred E. Smith, New York; Joseph T. Robinson, Arkansas.

Socialist—Norman Thomas, New York; James H. Maurer, Pennsylvania.

Socialist Labor—Verne L. Reynolds, New York; Jeremiah D. Crowley, New York.

Prohibition—William F. Varney, New York; James A. Edgerton, Virginia.

Workers—William Z. Foster, Illinois; Benjamin Gitlow, New York.

State	Total	Rep.	Dem.	Plur.	Electoral R D	Soc.	Soc. Lab.*	Prohib.	Others†	
Alabama.....	248,982	120,725	127,797	7,072 D	12	460				
Arizona.....	91,254	52,533	38,537	13,996 R	3				184	
Arkansas.....	197,693	77,751	119,196	41,445 D	9	429			317	
California.....	1,796,666	1,162,323	614,365	547,958 R	13	19,595			373	
Colorado.....	392,242	253,872	133,131	120,741 R	6	3,472			1,767	
Connecticut.....	553,031	296,614	252,040	44,574 R	7	3,019	622		736	
Delaware.....	105,891	68,860	36,643	32,217 R	3	329			59	
Florida.....	253,674	144,168	101,764	42,404 R	6	4,036			3,706	
Georgia.....	229,159	63,498	129,602	66,104 D	14	124			35,935	
Idaho.....	154,230	99,848	53,074	46,774 R	4	1,308				
Illinois.....	3,107,489	1,769,141	1,313,817	455,324 R	29	19,138	1,812		3,581	
Indiana.....	1,421,314	848,290	562,691	285,599 R	15	3,871	645	5,496	321	
Iowa.....	1,009,362	623,818	378,936	244,882 R	13	2,960	230		3,418	
Kansas.....	713,200	513,672	193,003	320,669 R	10	6,205			320	
Kentucky.....	940,604	558,064	381,070	176,994 R	13	837	340		293	
Louisiana.....	215,833	51,160	164,655	113,495 D	10				18	
Maine.....	262,171	179,923	81,179	98,744 R	6	1,068			1	
Maryland.....	528,348	301,479	223,626	77,853 R	8	1,701	906		636	
Massachusetts.....	1,577,827	775,566	792,758	17,192 D	18	6,262	773		2,463	
Michigan.....	1,372,082	965,396	396,762	568,634 R	15	3,516	799	2,728	2,881	
Minnesota.....	970,976	560,977	396,451	164,526 R	12	6,774	1,921		4,853	
Mississippi.....	151,692	27,153	124,539	97,386 D	10					
Missouri.....	1,500,721	834,080	662,562	171,518 R	18	3,739	340			
Montana.....	194,108	113,300	78,578	34,722 R	4	1,667			563	
Nebraska.....	547,138	345,745	197,959	147,786 R	8	3,434				
Nevada.....	32,417	18,327	14,090	4,237 R	3					
New Hampshire.....	196,747	115,404	80,715	34,689 R	4	455			173	
New Jersey.....	1,549,381	926,050	616,517	309,533 R	14	4,897	500	160	1,257	
New Mexico.....	118,014	69,645	48,211	21,434 R	3				158	
New York.....	4,466,072	2,193,344	2,089,863	103,481 R	45	107,332	4,211		71,322	
North Carolina.....	636,070	348,992	287,078	61,914 R	12					
North Dakota.....	239,867	131,441	106,643	24,793 R	5	842			936	
Ohio.....	2,508,346	1,627,546	864,210	763,336 R	24	8,683	1,515	3,556	2,836	
Oklahoma.....	618,427	394,046	219,174	174,872 R	10	3,924			1,283	
Oregon.....	319,942	205,341	109,223	96,118 R	5	2,720	1,564		1,094	
Pennsylvania.....	3,150,615	2,055,382	1,067,586	987,796 R	38	18,647	380	3,880	4,740	
Rhode Island.....	242,784	117,522	118,973	1,451 D	5		416		5,873	
South Carolina.....	68,605	3,188	62,700	59,512 D	9	47			2,670	
South Dakota.....	261,865	157,603	102,660	54,943 R	5	443			1,159	
Tennessee.....	363,473	195,388	167,343	28,045 R	12	631			111	
Texas.....	708,999	367,036	341,032	26,004 R	20	722			209	
Utah.....	176,604	94,618	80,985	13,633 R	4	954			47	
Vermont.....	135,191	90,404	44,440	45,964 R	4			338	9	
Virginia.....	305,358	164,609	140,146	24,463 R	12	250	180		173	
Washington.....	500,840	335,844	156,772	179,072 R	7	2,615	4,068		1,541	
West Virginia.....	642,752	375,551	263,784	111,767 R	8	1,313		1,703	401	
Wisconsin.....	1,016,872	544,205	450,259	93,946 R	13	18,213	381	2,245	1,569	
Wyoming.....	84,496	52,748	29,299	23,449 R	3	788			1,661	
Total.....	36,879,414	21,392,190	15,016,443	6,375,747 R	444	87	267,420	21,603	20,106	161,652

* Labor party in Maryland; Industrial party in Minnesota; Industrialist party in Pennsylvania.

† Breakdown of other votes: Workers 48,770; Anti-Smith 38,541; Farmer-Labor 6,390; void or scattering votes 60,700; blank or defective ballots 7,261.

Presidential Election of 1932

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; John N. Garner, Texas.

Republican—Herbert Hoover, California; Charles Curtis, Kansas.

Socialist—Norman Thomas, New York; James H. Maurer, Pennsylvania.

Socialist Labor—Verne L. Reynolds, New York; John W. Aiken, Massachusetts.

Prohibition—William D. Upshaw, Georgia; Frank S. Regan, Illinois.

Communist—William Z. Foster, Illinois; James W. Ford, New York.

Liberty—W. H. Harvey, Arkansas; F. B. Hemenway, Washington.

State	Total	Dem.	Rep.	Plur.	Electoral D R	Soc.	Soc. Lab.*	Prohib.	Others†
Alabama.....	245,034	207,910	34,675	173,235 D	11 ..	2,030	.....	13	406
Arizona.....	118,251	79,264	36,104	43,160 D	3 ..	2,618	.....	.....	265
Arkansas.....	220,562	189,602	28,467	161,135 D	9 ..	1,269	.....	.....	1,224
California.....	2,266,972	1,324,157	847,902	476,255 D	22 ..	63,299	.....	20,637	10,977
Colorado.....	457,696	250,877	189,617	61,260 D	6 ..	13,591	427	1,928	1,256
Connecticut.....	594,207	281,632	288,420	6,788 R	8 ..	20,480	2,287	.....	1,388
Delaware.....	112,901	54,319	57,073	2,754 R	3 ..	1,376	.....	.....	133
Florida.....	276,252	206,307	69,170	137,137 D	7 ..	775	.....	.....	.....
Georgia.....	255,590	234,118	19,863	214,255 D	12 ..	461	.....	1,125	23
Idaho.....	186,520	109,479	71,312	38,167 D	4 ..	526	.....	.....	5,203
Illinois.....	3,407,926	1,882,304	1,432,756	449,548 D	29 ..	67,258	3,638	6,388	15,582
Indiana.....	1,576,927	862,054	677,184	184,870 D	14 ..	21,388	2,070	10,399	3,832
Iowa.....	1,036,687	598,019	414,433	183,586 D	11 ..	20,467	.....	2,111	1,657
Kansas.....	791,978	424,204	349,498	74,706 D	9 ..	18,276	.....	.....	.....
Kentucky.....	983,063	580,574	394,716	185,858 D	11 ..	3,853	1,396	2,252	272
Louisiana.....	268,804	249,418	18,853	230,565 D	10 ..	.....	.....	.....	533
Maine.....	298,444	128,907	166,631	37,724 R	5 ..	2,489	255	.....	162
Maryland.....	511,054	314,314	184,184	130,130 D	8 ..	10,489	1,036	.....	1,031
Massachusetts.....	1,580,114	800,148	736,959	63,189 D	17 ..	34,305	2,668	1,142	4,892
Michigan.....	1,664,628	871,700	739,894	131,806 D	19 ..	39,205	1,401	2,893	9,535
Minnesota.....	1,002,843	600,806	363,959	236,847 D	11 ..	25,476	.....	.....	12,602
Mississippi.....	146,034	140,168	5,180	134,988 D	9 ..	686	.....	.....	.....
Missouri.....	1,609,894	1,025,406	564,713	460,693 D	15 ..	16,374	404	2,429	568
Montana.....	216,479	127,286	78,078	49,208 D	4 ..	7,891	.....	.....	3,224
Nebraska.....	570,135	359,082	201,177	157,905 D	7 ..	9,876	.....	.....	.....
Nevada.....	41,430	28,756	12,674	16,082 D	3 ..	.....	.....	.....	.....
New Hampshire.....	205,520	100,680	103,629	2,949 R	4 ..	947	.....	.....	264
New Jersey.....	1,630,063	806,630	775,684	30,946 D	16 ..	42,998	1,062	774	2,915
New Mexico.....	151,606	95,089	54,217	40,872 D	3 ..	1,776	.....	.....	524
New York.....	4,753,698	2,534,959	1,937,963	596,996 D	47 ..	177,397	10,339	.....	93,040
North Carolina.....	711,501	497,566	208,344	289,222 D	13 ..	5,591	.....	.....	.....
North Dakota.....	256,290	178,350	71,772	106,578 D	4 ..	3,521	.....	.....	2,647
Ohio.....	2,610,088	1,301,695	1,227,679	74,016 D	26 ..	64,094	1,968	7,421	7,231
Oklahoma.....	704,633	516,468	188,165	328,303 D	11 ..	.....	.....	.....	.....
Oregon.....	368,751	213,871	136,019	77,852 D	5 ..	15,450	1,730	.....	1,681
Pennsylvania.....	2,859,002	1,295,948	1,453,540	157,592 R	36 ..	91,119	659	11,319	6,417
Rhode Island.....	266,170	146,604	115,266	31,338 D	4 ..	3,138	433	183	546
South Carolina.....	104,407	102,347	1,978	100,469 D	8 ..	82	.....	.....	.....
South Dakota.....	288,438	183,515	99,212	84,303 D	4 ..	1,551	.....	463	3,697
Tennessee.....	390,638	259,817	126,806	133,011 D	11 ..	1,786	.....	1,995	234
Texas.....	863,426	760,348	97,959	662,389 D	23 ..	4,450	.....	.....	669
Utah.....	206,579	116,750	84,795	31,955 D	4 ..	4,087	.....	.....	947
Vermont.....	136,980	56,266	78,984	22,718 R	3 ..	1,533	.....	.....	197
Virginia.....	297,942	203,979	89,637	114,342 D	11 ..	2,382	.....	1,843	101
Washington.....	614,814	353,260	208,645	144,615 D	8 ..	17,080	1,009	1,540	33,280
West Virginia.....	743,774	405,124	330,731	74,393 D	8 ..	5,133	.....	2,342	444
Wisconsin.....	1,114,815	707,410	347,741	359,669 D	12 ..	53,379	494	2,672	3,119
Wyoming.....	96,962	54,370	39,583	14,787 D	3 ..	2,829	.....	.....	180
Totals.....	39,816,522	22,821,857	15,761,841	7,060,016 D	472 59	884,781	33,276	81,869	232,898

* Industrialist party in Pennsylvania.

† Breakdown of other votes: Communist 102,991; Liberty 53,425; Farmer-Labor 7,309; National 1,045; Industrialist (Minn.) 770; Jobless 725; Independent 533; Jacksonian 104; void or scattering 65,390.

Presidential Election of 1936

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; John N. Garner, Texas.
 Republican—Alfred M. Landon, Kansas; Frank Knox, Illinois.
 Socialist—Norman Thomas, New York; George Nelson, Wisconsin.
 Prohibition—D. Leigh Colvin, New York; Claude A. Watson, California.
 Communist—Earl Browder, Kansas; James W. Ford, New York.
 Union—William Lemke, North Dakota; Thomas C. O'Brien, Massachusetts.
 Socialist Labor—John W. Aiken, Massachusetts; Emil F. Teichert, New York.

State	Total	Dem.	Rep.	Plur.	Electoral		Soc.	Prohib.	Comm.	Others*
					D	R				
Alabama.....	275,744	238,196	35,358	202 838 D	11	..	242	719	678	551
Arizona.....	124,163	86,722	33,433	53,289 D	3	..	317	384	....	3,307
Arkansas.....	179,423	146,765	32,039	114,726 D	9	..	446	.....	169	4
California.....	2,638,882	1,766,836	836,431	930,405 D	22	..	11,331	12,917	10,877	490
Colorado.....	488,676	295,021	181,267	113,754 D	6	..	1,593	.....	497	10,298
Connecticut.....	690,783	382,189	278,685	103,504 D	8	..	5,683	.....	1,193	23,033
Delaware.....	127,603	69,702	54,014	15,688 D	3	..	172	.....	51	3,664
Florida.....	327,365	249,117	78,248	170,869 D	7	..	.....	.....	.....	.....
Georgia.....	293,178	255,364	36,942	218,422 D	12	..	68	663	.....	141
Idaho.....	199,623	125,683	66,256	59,427 D	4	..	.....	.....	.....	7,684
Illinois.....	3,956,522	2,282,999	1,570,393	712,606 D	29	..	7,530	3,439	801	91,360
Indiana.....	1,650,897	934,974	691,570	243,404 D	14	..	3,856	.....	1,090	19,407
Iowa.....	1,142,733	621,756	487,977	133,779 D	11	..	1,373	1,182	506	29,939
Kansas.....	865,013	464,520	397,727	66,993 D	9	..	2,766	.....	.....	.....
Kentucky.....	926,206	541,944	369,702	172,242 D	11	..	632	929	204	12,795
Louisiana.....	329,778	292,894	36,791	256,103 D	10	..	.....	.....	.....	93
Maine.....	304,240	126,333	168,823	42,490 R	5	..	783	334	257	7,710
Maryland.....	624,896	389,612	231,435	158,177 D	8	..	1,629	.....	915	1,305
Massachusetts.....	1,840,357	942,716	768,613	174,103 D	17	..	5,111	1,032	2,930	119,955
Michigan.....	1,805,093	1,016,794	699,733	317,061 D	19	..	8,208	579†	3,384	76,395
Minnesota.....	1,129,975	698,811	350,461	348,350 D	11	..	2,872	.....	2,574	75,257
Mississippi.....	162,090	157,318	4,443	152,875 D	9	..	329	.....	.....	.....
Missouri.....	1,828,635	1,111,043	697,891	413,152 D	15	..	3,454	908	417	14,922
Montana.....	230,512	159,690	63,598	96,092 D	4	..	1,066	224	385	5,549
Nebraska.....	608,032	347,454	247,731	100,323 D	7	..	.....	.....	.....	12,847
Nevada.....	43,848	31,925	11,923	20,002 D	3	..	.....	.....	.....	.....
New Hampshire.....	218,114	108,460	104,642	3,798 D	4	..	.....	.....	193	4,819
New Jersey.....	1,820,437	1,083,850	720,322	363,528 D	16	..	3,931	926	1,639	9,769
New Mexico.....	168,920	105,838	61,710	44,128 D	3	..	343	62	43	924
New York.....	5,596,398	3,293,222†	2,180,670	837,628 D	47	..	86,897	.....	35,609	.....
North Carolina.....	839,462	616,141	223,283	392,858 D	13	..	21	.....	11	6
North Dakota.....	273,716	163,148	72,751	90,397 D	4	..	552	197	360	36,708
Ohio.....	3,012,425	1,747,122	1,127,709	619,413 D	26	..	117	.....	5,251	132,228
Oklahoma.....	749,740	501,069	245,122	255,947 D	11	..	2,221	1,328	.....	.....
Oregon.....	414,021	266,733	122,706	144,027 D	5	..	2,143	4	104	22,331
Pennsylvania.....	4,138,105	2,353,788	1,690,300	663,488 D	36	..	14,375	6,691	4,060	68,891
Rhode Island.....	311,149	165,233	125,012	40,221 D	4	..	.....	.....	411	20,493
South Carolina.....	115,437	113,791	1,646	112,145 D	8	..	.....	.....	.....	.....
South Dakota.....	296,452	160,137	125,977	34,160 D	4	..	.....	.....	.....	10,388
Tennessee.....	475,531	327,083	146,516	180,567 D	11	..	685	632	319	296
Texas.....	843,482	734,485	103,874	630,611 D	23	..	1,075	514	253	3,281
Utah.....	216,677	150,246	64,555	85,691 D	4	..	432	43	280	1,121
Vermont.....	143,689	62,124	81,023	18,899 R	3	..	.....	.....	405	137
Virginia.....	334,590	234,980	98,336	136,644 D	11	..	313	594	98	269
Washington.....	692,338	459,979	206,892	252,687 D	8	..	3,496	1,041	1,907	19,423
West Virginia.....	830,073	502,582	325,486	177,096 D	8	..	832	1,173	.....	.....
Wisconsin.....	1,258,712	802,984	380,828	422,156 D	12	..	10,626	1,071	2,197	61,006
Wyoming.....	103,382	62,624	38,739	23,885 D	3	..	200	75	91	1,653
Total.....	45,647,117	27,751,597	16,679,583	10,797,090 D	523	8	187,720	37,661	80,159	910,397

* Breakdown of other votes: Union (including Royal Oak, Independent, and Third) 882,479; Socialist Labor (including Labor, Industrial, and Independent Labor) 12,802; National Union for Social Justice 9,407; Independent Republican 3,222; Christian 1,598; scattering 889.

† Commonwealth votes.

‡ Includes 274,924 American Labor votes.

Presidential Election of 1940

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; Henry A. Wallace, Iowa.

Republican—Wendell L. Willkie, New York; Charles L. McNary, Oregon.

Socialist—Norman Thomas, New York; Maynard C. Krueger, Illinois.

Prohibition—Roger W. Babson, Massachusetts; Edgar V. Moorman, Illinois.

Communist—Earl Browder, Kansas; James W. Ford, New York.

Socialist Labor—John W. Aiken, Massachusetts; Aaron M. Orange, New York.

State	Total	Dem.	Rep.	Plur.	Electoral		Soc.	Prohib.	Comm.	Others*
					D	R				
Alabama.....	294,219	250,726	42,184	208,542 D	11	..	100	700	509	.....
Arizona.....	150,039	95,267	54,030	41,237 D	3	..	..	742	..	.....
Arkansas.....	201,838	158,622	42,122	116,500 D	9	..	301	793	..	.....
California.....	3,268,791	1,877,618	1,351,419	526,199 D	22	..	..	9,400	13,586	16,768
Colorado.....	549,004	265,554	279,576	14,022 R	..	6	1,899	1,597	378	..
Connecticut.....	781,502	417,621	361,819†	55,802 D	8	..	..	..	1,091	971
Delaware.....	136,374	74,599	61,440	13,159 D	3	..	115	220	..	.....
Florida.....	485,492	359,334	126,158	233,176 D	7	..	..	..	..	.....
Georgia.....	312,553	265,194	23,934	241,260 D	12	..	..	983	..	22,442
Idaho.....	235,168	127,842	106,553	21,289 D	4	..	497	..	276	..
Illinois.....	4,217,935	2,149,934	2,047,240	102,694 D	29	..	10,914	9,190	..	657
Indiana.....	1,782,747	874,063	899,466	25,403 R	..	14	2,075	6,437	..	706
Iowa.....	1,215,430	578,800	632,370	53,570 R	..	11	..	2,284	1,524	452
Kansas.....	860,297	364,725	489,169	124,444 R	..	9	2,347	4,056	..	..
Kentucky.....	970,063	557,222	410,384	146,838 D	11	..	1,014	1,443	..	..
Louisiana.....	372,305	319,751	52,446	267,305 D	10	..	..	..	..	108
Maine.....	320,840	156,478	163,951	7,473 R	..	5	..	..	411	..
Maryland.....	660,104	384,546	269,534	115,012 D	8	..	4,093	1,274	657	..
Massachusetts.....	2,026,993	1,076,522	939,700	136,822 D	17	..	4,091	1,370	3,806	1,504
Michigan.....	2,085,929	1,032,991	1,039,917	6,926 R	..	19	7,593	1,795	2,834	799
Minnesota.....	1,251,188	644,196	596,274	47,922 D	11	..	5,454	..	2,711	2,553
Mississippi.....	175,824	168,267	2,814	165,453 D	9	..	193	..	..	4,553
Missouri.....	1,833,729	958,476	871,009	87,467 D	15	..	2,226	1,809	..	209
Montana.....	247,873	145,698	99,579	46,119 D	4	..	1,443	664	489	..
Nebraska.....	615,878	263,677	352,201	88,524 R	..	7	..	..	..	..
Nevada.....	53,174	31,945	21,229	10,716 D	3	..	..	..	..	..
New Hampshire.....	235,419	125,292	110,127	15,165 D	4	..	..	..	..	..
New Jersey.....	1,974,920	1,016,442	945,478	70,964 D	16	..	2,837	872	8,836	455
New Mexico.....	183,014	103,699	79,315	24,384 D	3	..	..	..	..	..
New York.....	6,301,596	3,251,918†	3,027,478	224,440 D	47	..	18,950	3,250	..	..
North Carolina.....	822,648	609,015	213,633	395,382 D	13	..	..	..	..	..
North Dakota.....	280,775	124,036	154,590	30,554 R	..	4	1,279	325	..	545
Ohio.....	3,319,912	1,733,139	1,586,773	146,366 D	26	..	..	..	..	..
Oklahoma.....	826,212	474,313	348,872	125,441 D	11	..	..	3,027	..	..
Oregon.....	481,240	258,415	219,555	38,860 D	5	..	398	154	191	2,527
Pennsylvania.....	4,078,714	2,171,035	1,889,848	281,187 D	36	..	10,967	..	4,519	2,345
Rhode Island.....	321,148	182,182	138,653	43,529 D	4	..	..	74	239	..
South Carolina.....	99,830	95,470	1,727	93,743 D	8	..	..	..	..	2,633
South Dakota.....	308,427	131,362	177,065	45,703 R	..	4	..	..	..	..
Tennessee.....	522,823	351,601	169,153	182,448 D	11	..	463	1,606	..	..
Texas.....	1,041,168	840,151	199,152	640,999 D	23	..	728	925	212	..
Utah.....	247,819	154,277	93,151	61,126 D	4	..	200	..	191	..
Vermont.....	143,062	64,269	78,371	14,102 R	..	3	..	..	411	11
Virginia.....	346,607	235,961	109,363	126,598 D	11	..	282	882	71	48
Washington.....	793,833	462,145	322,123	140,022 R	8	..	4,586	1,686	2,626	667
West Virginia.....	868,076	495,662	372,414	123,248 R	8	..	..	..	..	..
Wisconsin.....	1,405,540	704,821	679,206	25,615 D	12	..	15,071	2,148	2,394	1,900
Wyoming.....	112,240	59,287	52,633	6,654 D	3	..	148	172	..	..
Total.....	49,820,312	27,244,160	22,305,198	4,938,962 D	449	82	100,264	58,604	48,579	63,507

* Breakdown of other votes: Independent Democrat 22,428; Progressive 16,506; Socialist Labor 10,164; Independent Republican 4,550; Industrial 2,553; Jeffersonian Democrat 2,499; Industrial Government 1,518; Labor Party of Maryland 657; Alfred Knudson 545; Republican (Toibert Faction) 137; scattering 1,953.

† Includes 798 Union votes.

‡ Includes 417,418 American Labor votes.

Presidential Election of 1944

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; Harry S. Truman, Missouri.

Republican—Thomas E. Dewey, New York; John W. Bricker, Ohio.

Socialist—Norman Thomas, New York; Darlington Hoopes, Pennsylvania.

Prohibition—Claude A. Watson, California; Andrew Johnson, Kentucky.

Socialist Labor*—Edward A. Teichert, Pennsylvania; Arla A. Albaugh, Ohio.

State	Total	Dem.	Rep.	Plur.	Electoral						Others†
					D	R	Soc.	Prohib.	Soc. Lab.		
Alabama.....	244,743	198,918	44,540	154,378	D	11	190	1,095			
Arizona.....	137,634	80,926	56,287	24,639	D	4		421			
Arkansas.....	212,956	148,965	63,551	85,414	D	9	440				
California.....	3,520,875	1,988,564	1,512,965	475,599	D	25	3,923	14,770	327	326	
Colorado.....	505,039	234,331	268,731	34,400	R	6	1,977				
Connecticut.....	831,990	435,146	390,527	44,619	D	8	5,097		1,220		
Delaware.....	125,361	68,166	56,747	11,419	D	3	154	294			
Florida.....	482,592	339,377	143,215	196,162	D	8					
Georgia.....	328,109	268,187	56,507	211,680	D	12	6	36		3,373	
Idaho.....	208,321	107,399	100,137	7,262	D	4	282	503			
Illinois.....	4,036,061	2,079,479	1,939,314	140,165	D	28	180	7,411	9,677		
Indiana.....	1,672,091	781,403	875,891	94,488	R	13	2,223	12,574			
Iowa.....	1,052,599	499,876	547,267	47,391	R	10	1,511	3,752	193		
Kansas.....	733,776	287,458	442,096	154,638	R	8	1,613	2,609			
Kentucky.....	867,921	472,589	392,448	80,141	D	11	535	2,023	326		
Louisiana.....	349,383	281,564	67,750	213,814	D	10				69	
Maine.....	296,400	140,631	155,434	14,803	R	5			335		
Maryland.....	608,439	315,490	292,949	22,541	D	8					
Massachusetts.....	1,960,665	1,035,296	921,350	113,946	D	16		973	2,780	266	
Michigan.....	2,205,223	1,106,899	1,084,423	22,476	D	19	4,598	6,503	1,264	1,536	
Minnesota.....	1,125,529	589,864	527,416	62,448	D	11	5,073		3,176		
Mississippi.....	180,080	158,515	3,742	154,773	D	9				17,823	
Missouri.....	1,571,677	807,356	761,175	46,181	D	15	1,751	1,175	220		
Montana.....	207,355	112,556	93,163	19,393	D	4	1,296	340			
Nebraska.....	563,126	233,246	329,880	96,634	R	6					
Nevada.....	54,234	29,623	24,611	5,012	D	3					
New Hampshire.....	229,625	119,663	109,916	9,747	D	4	46				
New Jersey.....	1,963,761	987,874	961,335	26,539	D	16	3,358	4,255	6,939		
New Mexico.....	152,225	81,389	70,688	10,701	D	4		148			
New York.....	6,316,790	3,304,238†	2,987,647	316,591	D	47	10,553		14,352		
North Carolina.....	790,554	527,399	263,155	264,244	D	14					
North Dakota.....	220,171	100,144	118,535	18,391	R	4	943	549			
Ohio.....	3,153,056	1,570,763	1,582,293	11,530	R	25					
Oklahoma.....	722,636	401,549	319,424	82,125	D	10		1,663			
Oregon.....	480,147	248,635	225,365	23,270	D	6	3,785	2,362			
Pennsylvania.....	3,794,793	1,940,479	1,835,054	105,425	D	35	11,721	5,750	1,789		
Rhode Island.....	299,276	175,356	123,487	51,869	D	4		433			
South Carolina.....	103,375	90,601	4,547	86,054	D	8		365		7,862	
South Dakota.....	232,076	96,711	135,365	38,654	R	4					
Tennessee.....	510,692	308,707	200,311	108,396	D	12	792	882			
Texas.....	1,150,326	821,605	191,425	630,180	D	23	593	1,013		135,690	
Utah.....	248,319	150,088	97,891	52,197	D	4	340				
Vermont.....	125,361	53,820	71,527	17,707	R	3				14	
Virginia.....	388,485	242,276	145,243	97,033	D	11	417	459	90		
Washington.....	856,328	486,774	361,689	125,085	D	8	3,824	2,396	1,645		
West Virginia.....	715,596	392,777	322,819	69,958	D	8					
Wisconsin.....	1,339,152	650,413	674,532	24,119	R	12	13,205		1,002		
Wyoming.....	101,340	49,419	51,921	2,502	R	3					
Total.....	47,976,263	25,602,504	22,066,285	3,596,219	D	432	99	80,426	74,754	45,335	166,959

* Industrial Government candidates in Minnesota, New York and Pennsylvania.

† Breakdown of other votes: Texas Regulars 135,439; Regular Democrat 9,964; Independent Republican 7,869; Southern Democrat 7,799; Independent Democrat 3,373; America First 1,781; Republican (Taft Faction) 93; scattering 881.

‡ Includes 496,405 American Labor and 329,235 Liberal votes.

Presidential Election of 1948

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Democratic—Harry S. Truman, Missouri; Alben Barkley, Kentucky.

Republican—Thomas E. Dewey, New York; Earl Warren, California.

States' Rights Democratic—J. Strom Thurmond, South Carolina; Fielding L. Wright, Mississippi.

Progressive—Henry A. Wallace, Iowa; Glen H. Taylor, Idaho.

Socialist—Norman Thomas, New York; Tucker P. Smith, Michigan.

Prohibition—Claude A. Watson, California; Dale Learn, Pennsylvania.

Socialist Labor—Edward A. Teichert, Pennsylvania; Stephen Emery, New York.

State	Total	Dem.	Rep.	SR Dem.	Plur.	Electoral			Prog. ¹	Others ²
						D	R	S		
Alabama	214,980	(9)	40,930	171,443	130,513 S	..	..	11	1,522	1,085
Arizona	177,065	95,251	77,597	..	17,654 D	4	..	..	3,310	907
Arkansas	242,475	149,659	50,959	40,068	98,700 D	9	..	..	751	1,038
California	4,021,538	1,913,134	1,895,269	1,228 ³	17,865 D	25	..	..	190,381	21,526
Colorado	515,237	267,288	239,714	..	27,574 D	6	..	..	6,115	2,120
Connecticut	883,518	423,297	437,754	..	14,457 R	..	8	..	13,713	8,754
Delaware	139,073	67,813	69,588	..	1,775 R	..	3	..	1,050	622
Florida	577,643	281,988	194,280	89,755	87,708 D	8	..	..	11,620	..
Georgia	418,760	254,646	76,691	85,055	169,591 D	12	..	..	1,636	732
Idaho	214,816	107,370	101,514	..	5,856 D	4	..	..	4,972	960
Illinois	3,984,046	1,994,715	1,961,103	..	33,612 D	28	..	..	..	28,228
Indiana	1,656,214	807,833	821,079	..	13,246 R	..	13	..	9,649	17,653
Iowa	1,038,264	522,380	494,018	..	28,362 D	10	..	..	12,125	9,741
Kansas	788,819	351,902	423,039	..	71,137 R	..	8	..	4,603	9,275
Kentucky	822,658	466,756	341,210	10,411	125,546 D	11	..	..	1,567	2,714
Louisiana	416,326	136,344	72,657	204,290	67,946 S	..	10	..	3,035	..
Maine	264,787	111,916	150,234	..	38,318 R	..	5	..	1,884	753
Maryland	596,735	286,521	249,814	2,476 ⁴	8,293 R	..	8	..	9,983	2,941
Massachusetts	2,155,347	1,151,788	909,370	..	242,418 D	16	..	..	38,157	56,032
Michigan	2,109,609	1,003,448	1,038,595	..	35,147 R	..	19	..	46,515	21,051
Minnesota	1,212,226	692,966 ⁵	483,617	..	209,349 D	11	..	..	27,866	7,777
Mississippi	192,190	19,384 ⁷	5,043 ⁸	167,538 ⁹	148,154 S	..	9	..	225	..
Missouri	1,578,628	917,315	655,039	..	262,276 D	15	..	..	3,998	2,276
Montana	224,278	119,071	96,770	..	22,301 D	4	..	..	7,313	1,124
Nebraska	488,939	224,165	264,774	..	40,609 R	..	6	..	..	..
Nevada	62,117	31,291	29,357	..	1,934 D	3	..	..	1,469	..
New Hampshire	231,440	107,995	121,299	7	13,304 R	..	4	..	1,970	169
New Jersey	1,949,555	895,455	981,124	..	85,669 R	..	16	..	42,683	30,293
New Mexico	185,767	105,464	80,303	..	25,161 D	4	..	..	..	..
New York	6,274,527	2,780,204 ¹⁰	2,841,163	..	60,959 R	..	47	..	508,559	143,601
North Carolina	791,209	459,070	258,572	69,652	200,498 D	14	..	..	3,915	..
North Dakota	220,716	95,812	115,139	374	19,327 R	..	4	..	8,391	1,000
Ohio	2,936,071	1,452,791	1,445,684	..	7,107 D	25	..	..	37,596	..
Oklahoma	721,599	452,782	268,817	..	183,965 D	10	..	..	..	..
Oregon	524,080	243,147	260,904	..	17,757 R	..	6	..	14,978	5,051
Pennsylvania	3,735,149	1,752,426	1,902,197	..	149,771 R	..	35	..	55,161	25,365
Rhode Island	326,098	188,619	134,892	..	53,727 D	4	..	..	2,587	..
South Carolina	142,571	34,423	5,386	102,607	68,184 S	..	8	..	154	1
South Dakota	250,105	117,653	129,651	..	11,998 R	..	4	..	2,801	..
Tennessee	550,283	270,402	202,914	73,815	67,488 D	11	..	1	1,854	1,288
Texas	1,147,245	750,700	282,240	106,909	468,460 D	23	..	..	3,764	3,632
Utah	276,305	149,151	124,402	..	24,749 D	4	..	..	2,679	73
Vermont	123,382	45,557	75,926	..	30,369 R	..	3	..	1,279	620
Virginia	419,256	200,786	172,070	43,393	28,716 D	11	..	..	2,047	960
Washington	905,059	476,165	386,315	..	89,850 D	8	..	..	31,692	10,887
West Virginia	748,750	429,188	316,251	..	112,937 D	8	..	..	3,311	..
Wisconsin	1,276,800	647,310	590,959	..	56,351 D	12	..	..	25,282	13,249
Wyoming	101,425	52,354	47,947	..	4,407 D	3	..	..	931	193
Total	48,833,680	24,105,695	21,969,170	1,169,021	2,136,525 D	303	189	39	1,156,103	433,691

¹ Independent Progressive in California; Peoples in Connecticut; Independent in Kansas, Mississippi, Ohio, South Dakota; American Labor in New York; People's Progressive in Wisconsin. ² Industrial Government in Minnesota. New York, Pennsylvania; Independent Socialist Labor in Wisconsin. ³ Breakdown of other votes: Socialist 189,000; Prohibition 103,216; Socialist Labor 29,061; Socialist Workers 13,613; Christian Nationalist 42; Greenback 6; Vegetarian 4; blank 145,320; write-in 1,883; scattering 1,666; void 71. ⁴ Not on ballot. ⁵ Write-in votes. ⁶ Including Farmer-Labor votes. ⁷ National Democratic. ⁸ Contains 2,595 Republican and 2,448 Independent Republican votes. ⁹ Mississippi Democratic. ¹⁰ Includes 222,562 Liberal votes.

Electoral Vote for President, 1888-1924

States	1888	1892	1896	1900	1904	1908	1912	1916	1920	1924
	Harrison, Rep. Cleveland, Dem.	Cleveland, Dem. Harrison, Rep. Weaver, Pro.	McKinley, Rep. Bryan, Dem.	McKinley, Rep. Bryan, Dem.	Roosevelt, Rep. Parker, Dem.	Taft, Rep. Bryan, Dem.	Wilson, Dem. Taft, Rep. Roosevelt, Prog.	Wilson, Dem. Hughes, Rep.	Harding, Rep. Cox, Dem.	Coolidge, Rep. Davis, Dem. LaFollette, Prog.
Alabama	10	11	11	11	11	11	12	12	12	12
Arizona							3	3	3	3
Arkansas	7	8	8	8	9	9	9	9	9	9
California	8	8 1	8 1	9	10	10	2 11	13	13	13
Colorado	3	4	4	4	5	5	6	6	6	6
Connecticut	6	6	6	6	7	7	7	7	7	7
Delaware	3	3	3	3	3	3	3	3	3	3
Florida	4	4	4	4	5	5	6	6	6	6
Georgia	12	13	13	13	13	13	14	14	14	14
Idaho		3	3	3	3	3	4	4	4	4
Illinois	22	24	24	24	27	27	29	29	29	29
Indiana	15	15	15	15	15	15	15	15	15	15
Iowa	13	13	13	13	13	13	13	13	13	13
Kansas	9	10	10	10	10	10	10	10	10	10
Kentucky	13	13	12 1	13	13	13	13	13	13	13
Louisiana	8	8	8	8	9	9	10	10	10	10
Maine	6	6	6	6	6	6	6	6	6	6
Maryland	8	8	8	8	1 7	2 6	8	8	8	8
Massachusetts	14	15	15	15	16	16	18	18	18	18
Michigan	13	5 9	14	14	14	14	15	15	15	15
Minnesota	7	9	9	9	11	11	12	12	12	12
Mississippi	9	9	9	9	10	10	10	10	10	10
Missouri	16	17	17	17	18	18	18	18	18	18
Montana		3	3	3	3	3	4	4	4	4
Nebraska	5	8	8	8	8	8	8	8	8	8
Nevada	3	3	3	3	3	3	3	3	3	3
New Hampshire	4	4	4	4	4	4	4	4	4	4
New Jersey	9	10	10	10	12	12	14	14	14	14
New Mexico							3	3	3	3
New York	36	36	36	36	39	39	45	45	45	45
North Carolina	11	11	11	11	12	12	12	12	12	12
North Dakota		1 1 1	3	3	4	4	5	5	5	5
Ohio	23	1 22	23	23	23	23	24	24	24	24
Oklahoma						7	10	10	10	10
Oregon	3	3 1	4	4	4	4	5	5	5	5
Pennsylvania	30	32	32	32	34	34	38	38	38	38
Rhode Island	4	4	4	4	4	4	5	5	5	5
South Carolina	9	9	9	9	9	9	9	9	9	9
South Dakota		4	4	4	4	4	5	5	5	5
Tennessee	12	12	12	12	12	12	12	12	12	12
Texas	13	15	15	15	18	18	20	20	20	20
Utah			3	3	3	3	4	4	4	4
Vermont	4	4	4	4	4	4	4	4	4	4
Virginia	12	12	12	12	12	12	12	12	12	12
Washington		4	4	4	5	5	7	7	7	7
West Virginia	6	6	6	6	7	7	8	1 7	8	8
Wisconsin	11	12	12	12	12	13	13	13	13	13
Wyoming		3	3	3	3	3	3	3	3	3
Total	233 168	277 145 22	271 176	292 155	336 140	321 162	435 8 88	277 254	404 127	382 136 13

NOTE: For electoral votes by state in elections later than 1924, see preceding pages.

CONGRESS

Representatives Under Each Apportionment

Source: The Congressional Directory.

The apportionment based on the Seventeenth Census (1950) distributes the 435 seats in the House among the States according to the method of equal proportions. By this method the per cent difference between the average number of Representatives per million people in any 2 States is made as small as possible. Also, the per cent difference between the average districts, i.e., the average number of persons per Representative, in any 2 States is made as small as possible. By equalizing the representation of all pairs of States, the method gives as nearly equal representation as possible to all States in proportion to their population.

State	Constitutional apportionment	First Census, 1790	Second Census, 1800	Third Census, 1810	Fourth Census, 1820	Fifth Census, 1830	Sixth Census, 1840	Seventh Census, 1850	Eighth Census, 1860	Ninth Census, 1870	Tenth Census, 1880	Eleventh Cen- sus, 1890	Twelfth Census, 1900	Thirteenth Cen- sus, 1910*	Fifteenth Cen- sus, 1930	Sixteenth Cen- sus, 1940	Seventeenth Census, 1950
Alabama				1	3	5	7	7	6	8	8	9	9	10	9	9	9
Arizona							1	2	3	4	5	6	7	7	7	7	6
Arkansas						1	2	2	3	4	5	6	7	8	11	20	23
California							2	2	3	4	6	7	8	11	20	23	30
Colorado										1	1	2	3	4	4	4	4
Connecticut	5	7	7	7	6	6	4	4	4	4	4	4	5	5	6	6	6
Delaware	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Florida							1	1	1	2	2	2	3	4	5	6	8
Georgia	3	2	4	6	7	9	8	8	7	9	10	11	12	10	10	10	10
Idaho														1	2	2	2
Illinois				1	1	3	7	9	14	19	20	22	25	27	27	26	25
Indiana				1	3	7	10	11	11	13	13	13	13	13	12	11	11
Iowa							2	2	6	9	11	11	11	11	9	8	8
Kansas									1	3	7	8	8	8	7	6	6
Kentucky		2	6	10	12	13	10	10	9	10	11	11	11	11	9	9	8
Louisiana				1	3	3	4	4	5	6	6	6	6	6	6	6	7
Maine				7	7	8	7	6	5	5	4	4	4	4	3	3	3
Maryland	6	8	9	9	9	8	6	6	5	6	6	6	6	6	6	6	7
Massachusetts	8	14	17	13	13	12	10	11	10	11	12	13	14	16	15	14	14
Michigan						1	3	4	6	9	11	12	12	13	17	17	18
Minnesota								2	2	3	5	7	9	10	9	9	9
Mississippi				1	1	2	4	5	5	6	7	8	8	8	7	7	6
Missouri					1	2	5	7	9	13	14	15	16	16	13	13	11
Montana											1	1	1	2	2	2	2
Nebraska									1	1	3	6	6	6	5	4	4
Nevada									1	1	1	1	1	1	1	1	1
New Hampshire	3	4	5	6	6	5	4	3	3	3	2	2	2	2	2	2	2
New Jersey	4	5	6	6	6	6	5	5	5	7	7	8	10	12	14	14	14
New Mexico														1	1	2	2
New York	6	10	17	27	34	40	34	33	31	33	34	34	37	43	45	45	43
North Carolina	5	10	12	13	13	13	9	8	7	8	9	9	10	10	11	12	12
North Dakota											1	1	2	3	2	2	2
Ohio				1	6	14	19	21	21	19	20	21	21	22	24	23	23
Oklahoma														5	8	9	8
Oregon								1	1	1	1	2	2	3	3	4	4
Pennsylvania	8	13	18	23	26	28	24	25	24	27	28	30	32	36	34	33	30
Rhode Island	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
South Carolina	5	6	8	9	9	9	7	6	4	5	7	7	7	7	6	6	6
South Dakota												2	2	3	2	2	2
Tennessee		1	3	6	9	13	11	10	8	10	10	10	10	10	9	10	9
Texas							2	2	4	6	11	13	16	18	21	21	22
Utah												1	1	2	2	2	2
Vermont		2	4	6	5	5	4	3	3	3	2	2	2	2	1	1	1
Virginia	10	19	22	23	22	21	15	13	11	9	10	10	10	10	9	9	10
Washington											1	2	3	5	6	6	7
West Virginia										3	4	4	5	6	6	6	6
Wisconsin							2	3	6	8	9	10	11	11	10	10	10
Wyoming											1	1	1	1	1	1	1
Total	65	106	142	186	213	242	232	237	243	293	332	357	391	435	435	435	435

* No apportionment was made in 1920.

Qualifications for Voting in the 48 States

Source: Questionnaires to the states.

State	Minimum length of U. S. citizenship	Residence ¹			Literacy test	Poll tax ²
		State	County	District		
Alabama.....		2 yr.	1 yr.	3 mo. ³	Yes	\$1.50
Arizona.....	1 yr.	1 yr.	3 mo.	30 da.	.....
Arkansas.....		1 yr.	6 mo.	30 da. ⁴	.....	1.00
California.....	3 mo.	1 yr.	3 mo.	54 da. ⁴	Yes	.....
Colorado.....		1 yr.	3 mo.	30 da. ⁵	.....
Connecticut.....		1 yr.	.....	6 mo. ⁶	Yes	.....
Delaware.....		1 yr.	3 mo.	30 da.	Yes	.....
Florida.....		1 yr.	6 mo.	.....	.....
Georgia ⁷		1 yr.	6 mo.	6 mo.	Yes	.....
Idaho.....	(⁸)	6 mo.	30 da.	.....	.....
Illinois.....		1 yr.	3 mo.	30 da.	.....
Indiana.....		6 mo.	2 mo. ⁹	30 da. ⁴	.....
Iowa.....		6 mo.	60 da.	10 da. ⁴	.....
Kansas.....		6 mo.	.....	30 da. ¹⁰	.....
Kentucky.....		1 yr.	6 mo.	2 mo.	.....
Louisiana.....		2 yr.	1 yr. ¹¹	3 mo. ¹²	Yes	.....
Maine.....		6 mo.	.....	3 mo. ⁶	Yes	.....
Maryland.....		1 yr.	6 mo.	6 mo.	.....
Massachusetts.....		1 yr.	.....	6 mo. ⁶	Yes	.....
Michigan.....		6 mo.	.....	30 da. ⁶	.....
Minnesota.....	3 mo.	6 mo.	.....	30 da.	.....
Mississippi.....		2 yr.	.....	1 yr.	(¹³)	2.00
Missouri.....		1 yr.	2 mo.	2 mo. ⁶	.....
Montana.....		1 yr.	30 da.	30 da. ⁴	.....
Nebraska.....		6 mo.	40 da.	10 da.	.....
Nevada.....		6 mo.	30 da.	10 da. ⁴	.....
New Hampshire.....		6 mo.	.....	6 mo. ⁶	Yes	.....
New Jersey.....		1 yr.	5 mo.	.....	.....
New Mexico.....		1 yr.	3 mo.	30 da. ⁴	.....
New York.....	90 da.	1 yr.	4 mo.	30 da.	Yes	.....
North Carolina.....		1 yr.	4 mo.	4 mo.	Yes	.....
North Dakota.....		1 yr.	3 mo.	30 da. ⁴	.....
Ohio.....		1 yr.	40 da.	40 da. ⁴	.....
Oklahoma.....		1 yr.	6 mo.	30 da. ⁴	.....
Oregon.....		6 mo.	.....	30 da.	Yes	.....
Pennsylvania.....	1 mo.	1 yr. ¹⁴	.....	2 mo.	.....
Rhode Island.....	1 yr.	1 yr.	.....	6 mo. ⁶	.....
South Carolina.....	2 yr.	2 yr.	1 yr.	4 mo.	.....	(¹⁵)
South Dakota.....	5 yr.	1 yr.	3 mo.	30 da. ⁴	.....
Tennessee.....		1 yr.	6 mo.	.....	.....	1.00 ¹⁶
Texas.....		1 yr.	6 mo.	.....	.....	1.75
Utah.....	3 mo.	1 yr.	4 mo.	2 mo. ⁴	.....
Vermont ¹⁷		1 yr.	.....	3 mo. ^{6,15}	.....
Virginia.....		1 yr.	6 mo. ¹⁶	30 da. ⁴	Yes	1.50
Washington.....		1 yr.	3 mo.	30 da. ¹⁷	Yes	.....
West Virginia.....		1 yr.	2 mo.	.....	.....
Wisconsin.....		1 yr.	.....	10 da.	.....
Wyoming.....		1 yr.	60 da.	10 da.	(¹⁸)	.....

¹ Registration of all or part of the voters is required in most states. ² Annual levy. Although poll (or head) taxes are levied in several other states, those listed make payment of the tax a condition for voting. ³ Precinct or ward. ⁴ Precinct. ⁵ City or town, and 15 days in precinct. ⁶ City or town. ⁷ Minimum voting age is 18; in all other states it is 21. ⁸ First paper must have been taken out. ⁹ Township. ¹⁰ Township or ward. ¹¹ Parish. ¹² Must be able to read or understand when read to him any section of state constitution. ¹³ 6 months if previously qualified to elector or natural-born citizen of state. ¹⁴ Not now operative. 1951 statute requires only that voter liable in 1870 should have paid. Thus, by statute, the state constitutional requirement is circumvented. ¹⁵ To qualify to vote for representatives to general assembly or justices. ¹⁶ County, city, or town. ¹⁷ City, town, ward, or precinct. ¹⁸ Repealed in 1945. ¹⁹ Municipality 4 mo. ²⁰ A person must take freeman's oath as qualification for voting.

Plurality and Majority

In order to win a plurality, a candidate must receive a greater number of votes than anyone running against him. If he receives 50 votes, for example, and two other candidates receive 49 and 2, he will have a plurality of one vote over his closest opponent.

However, a candidate does not have a majority unless he receives more than 50 per cent of the total votes cast. In the example above, the candidate does not have a majority, because his 50 votes are less than 50 per cent of the 101 votes cast.

If only two candidates receive votes, a plurality is necessarily a majority, but if more than two candidates receive votes, it is possible for one to have a substantial plurality without a majority.

BIOGRAPHIES OF THE PRESIDENTS

GEORGE WASHINGTON

was born February 22, 1732 (February 11, 1731/2, old style) in Westmoreland County, Virginia. He early trained as a surveyor; but in 1752 he was appointed adjutant in the Virginia militia, and for the next three years he took an active part in the wars against the French and Indians, serving as General Braddock's aide in the disastrous campaign against Fort Duquesne. In 1759 he resigned from the militia, married Martha Dandridge Custis, a widow, and settled down as a gentleman farmer at Mount Vernon.

As a militiaman, he had been exposed to the arrogance of the British officers, and his experience as a planter with British commercial restrictions increased his anti-British sentiment. He opposed the Stamp Act of 1765 and after 1770 became increasingly prominent in organizing resistance. A delegate to the Continental Congress, Washington was selected as commander in chief of the Continental Army and took command at Cambridge, Massachusetts, on July 3, 1775.

Inadequately supported and sometimes covertly sabotaged by the Congress, in charge of troops who were inexperienced, badly equipped and impatient of discipline, Washington conducted the war on the policy of avoiding major engagements with the British and wearing them down by harassing tactics. His able generalship, along with the French alliance and the growing weariness within Britain, brought the war to a conclusion with the surrender of Cornwallis at Yorktown on October 19, 1781.

The chaotic years under the Articles of Confederation led Washington to return to public life in the hope of promoting the formation of a strong central government. He presided over the Constitutional Convention and yielded to the universal demand that he serve as first President. In office, he sought to unite the nation in the service of establishing the authority of new government at home and abroad. Greatly distressed by the emergence of the Hamilton-Jefferson rivalry, he worked to maintain neutrality but actually sympathized more with Hamilton. Following his unanimous re-election in 1792, his second term was dominated by the Federalists. His Farewell Address rebuked party spirit and warned against foreign entanglements.

He died at Mt. Vernon on December 14, 1799. Tall, dignified and impressive, Washington gave a public impression of austerity, though he was capable of gaiety in private. His life was characterized by a

strict sense of duty to his people. The standard biographies are by Fitzpatrick, Ford, Hughes and Stephenson.

JOHN ADAMS

was born on October 30 (October 19, old style), 1735, at Braintree (now Quincy), Massachusetts. A Harvard graduate, he considered teaching and the ministry but finally turned to law and was admitted to the bar in 1758. He opposed the Stamp Act, served as lawyer for patriots indicted by the British and, by the time of the Continental Congresses, was in the vanguard of the movement for independence. In 1778 he went to France as commissioner. Subsequently he helped negotiate the peace treaty with Britain, and in 1785 became the U. S. envoy to London. Resigning in 1788, he was elected Vice President under Washington, and was re-elected in 1792.

Though a Federalist, Adams did not get along with Hamilton who sought to prevent his election to the presidency in 1796, and thereafter intrigued against his administration. Adams was chosen with 71 electoral votes to 68 for his closest competitor, Thomas Jefferson, who became Vice President. In 1798 Adams' independent policy averted a war with France but completed the break with Hamilton and the right-wing Federalists while, at the same time, the enactment of the Alien and Sedition Acts, directed against foreigners and against critics of the government, exasperated the Jeffersonian opposition. The split between Adams and Hamilton elected Jefferson in 1800. Adams retired to his home in Quincy, Massachusetts. He later corresponded with Jefferson and they died on the same day, July 4, 1826.

Stout, somewhat vain and irascible, Adams was honest, fearless and essentially fair-minded. His *Defence of the Constitutions of Government of the United States* (1787) contains original and striking if conservative political ideas. He married Abigail Smith in 1764, and their life together was long and happy. The standard biographies are by Morse and Chinard.

THOMAS JEFFERSON

was born on April 13 (April 2, old style), 1743, at Shadwell in Goochland (now Albemarle) County, Virginia. A William and Mary graduate, he studied law but from the start showed an interest in science and philosophy. His literary skill and political clarity brought him to the forefront

of the revolutionary movement in Virginia. As delegate to the Continental Congress, he drafted the Declaration of Independence. In 1776 he entered the Virginia House of Delegates and initiated a comprehensive reform program for the abolition of feudal survivals in land tenure and the separation of church and state.

In 1779 he became governor, but constitutional limitations on his power combined with his own lack of executive energy caused an unsatisfactory administration, culminating in Jefferson's virtual abdication when the British invaded Virginia in 1781. He now retired to his beautiful home at Monticello, to his wife, Martha Wayles Skelton, whom he had married in 1772 and who died in 1782, and to his children.

Jefferson's Notes on Virginia (1784-85) illustrate his many-faceted interests, his limitless intellectual curiosity, his deep faith in agrarian democracy. Sent to Congress in 1783, he helped lay down the decimal system and drafted basic reports on the organization of the western lands. In 1785 he was appointed minister to France, where the Anglo-Saxon liberalism he had drawn from Locke was stimulated by contact with the thought which would soon ferment in the French Revolution. In 1789 Washington appointed him Secretary of State. While favoring the Constitution and a strengthened central government, Jefferson came to believe that Hamilton contemplated the establishment of a monarchy. Growing differences resulted in Jefferson's resignation on Dec. 31, 1793.

Elected Vice President in 1796, Jefferson continued to serve as spiritual leader of the opposition to Federalism, particularly to the repressive Alien and Sedition Acts. He was elected President in 1801 by the House of Representatives as a result of Hamilton's decision to throw the Federalist votes to him rather than to Aaron Burr, who had tied him in electoral votes. The purchase of Louisiana from France in 1803, though in violation of his earlier constitutional scruples, was the most notable act of his administration. Re-elected in 1804 with 162 electoral votes to 14 for the Federalist Charles C. Pinckney, Jefferson tried desperately during his second term to keep the United States out of the Napoleonic Wars in Europe, employing to this end the unpopular embargo policy.

After his retirement to Monticello in 1809, he developed his interest in education, founding the University of Virginia and watching its development with never-flagging interest. He died at Monticello on July 4, 1826. Tall, loose-jointed, a poor speaker, Jefferson had an enormous variety of interests and skills, ranging from education and science to architecture and music. Economically his conception of democracy persupposed an essentially rural

community of small freeholds; but his deep and abiding faith in the common man provides inspiration for future generations. The standard biographies are by Chinard, Bowers, Kimball, Randall and Malone.

JAMES MADISON

was born in Port Conway, Virginia, on March 16, 1751 (March 5, 1750/1, old style). A Princeton graduate, he joined the struggle for independence on his return to Virginia in 1771. In the seventies and eighties he was active both in state politics, where he championed the Jefferson reform program, and in the Continental Congress. He was influential in the Constitutional Convention as leader of the group favoring a strong central government and as recorder of the debates; and he subsequently wrote, in collaboration with Alexander Hamilton and John Jay, the *Federalist* papers to aid the campaign for the adoption of the Constitution.

In the new Congress, Madison soon emerged as the leader in the House of the men who opposed Hamilton's financial program and his pro-British leanings in foreign policy. Retiring from Congress in 1797, he continued active in Virginia and drafted the Virginia Resolution protesting the Alien and Sedition Acts. His intimacy with Jefferson made him natural choice for Secretary of State in 1801.

In 1809 Madison succeeded Jefferson as President, with 122 electoral votes to 47 for the Federalist, C. C. Pinckney, and 6 scattering. His attractive wife, Dolly Payne Todd, whom he married in 1794, brought a new social sparkle to the executive mansion. In the meantime, increasing tension with Britain culminated in the War of 1812—a war for which the United States was unprepared, and for which Madison lacked the executive talent to clear out incompetence and mobilize the nation's energies. Madison was re-elected in 1812, with 128 electoral votes to 89 for the Federalist, De Witt Clinton. In 1814 the British actually captured Washington and forced Madison to flee to Virginia.

In his domestic program, Madison capitulated to the Hamiltonian policies that he had resisted twenty years before, signing bills to establish a United States Bank and a higher tariff. Following his presidency, he remained in retirement in Virginia until his death on June 28, 1836. Small, wrinkled, unimpressive, Madison had an acute political intelligence but lacked executive force. The standard lives are by Hunt, Brant and Rives.

JAMES MONROE

was born on April 28, 1758, in Westmoreland County, Virginia. A William and Mary graduate, he served in the army during

the first years of the Revolution and was wounded at Trenton. He then entered Virginia politics and later national politics under the sponsorship of Jefferson. In 1788 he married Eliza Kortright.

Fearing centralization, Monroe opposed the adoption of the Constitution and, as senator from Virginia, was highly critical of the Hamiltonian program. In 1794 he was appointed minister to France where his ardent sympathies with the Revolution exceeded the wishes of the State Department. A troubled diplomatic career ended with his recall in 1796. From 1799 to 1802 he was governor of Virginia. In 1803 Jefferson sent him to France to help negotiate the Louisiana Purchase and for the next few years he was active in various continental negotiations.

In 1808 Monroe flirted with the radical wing of the Republican party, which opposed Madison's candidacy; but the presidential boom came to naught and, after a brief term as governor of Virginia in 1811, Monroe accepted Madison's offer of the State Department. During the war he vainly sought a field command and served as Secretary of War from Sept., 1814, to Mar., 1815.

Elected President in 1816 with 183 electoral votes to 34 for the Federalist Rufus King, and re-elected without opposition in 1820, Monroe, the last of the Virginia dynasty, pursued the course of systematic tranquilization which won for his terms the name "the era of good feeling." He continued Madison's surrender to the Hamiltonian domestic program, signed the Missouri Compromise, acquired Florida and, with the able assistance of his Secretary of State, John Quincy Adams, promulgated the Monroe Doctrine in 1823, declaring against foreign colonization or intervention in the Americas. He died in New York City on July 4, 1831.

A sound man of medium abilities, Monroe possessed qualities of judgment rather than of leadership. The standard biographies are by Morgan, Gilman and Styron.

JOHN QUINCY ADAMS

was born on July 11, 1767, at Braintree (now Quincy), Massachusetts, the son of John Adams. He spent his early years in Europe with his father, graduated from Harvard and entered law practice. His anti-Jeffersonian newspaper articles won him political attention. In 1794 he became minister to the Netherlands, the first of several diplomatic posts which occupied him until his return to Boston in 1801. In 1797 he married Louisa Catherine Johnson.

In 1803 he was elected to the Senate, nominally as a Federalist, but his repeated displays of independence on such issues as the Louisiana Purchase and the embargo caused his party to compel his resignation

and ostracize him socially. In 1809 Madison rewarded him for his support of Jefferson by appointing him minister to St. Petersburg. He helped negotiate the Treaty of Ghent in 1814 and in 1815 became minister to London. In 1817 Monroe appointed him Secretary of State where he served with great distinction, gaining Florida from Spain without hostilities and playing an equal part with Monroe in formulating the Monroe Doctrine.

When no presidential candidate received a majority of electoral votes in 1824, Adams, with the support of Henry Clay, was elected by the House in 1825 over Andrew Jackson who had the original plurality. Adams had ambitious plans of government activity to foster internal improvements and promote the arts and sciences; but congressional obstructionism combined with his own unwillingness or inability to play the role of a politician meant that little was accomplished. Retiring to Quincy after his defeat in 1828, he was elected to the House of Representatives in 1831 where, though nominally a Whig, he pursued as ever an independent course. He led the fight to force Congress to receive anti-slavery petitions and fathered the Smithsonian Institution.

Stricken on the floor of the House, he died on February 23, 1848. Tacitless, brusque, conscientious, a rough and savage debater, Adams spared neither himself nor his enemies. His long and detailed *Diary* gives a unique picture of the personalities and politics of the times. The standard biographies are by Morse and Clark.

ANDREW JACKSON

was born on March 15, 1767, in what is now generally agreed to be Waxhaw, South Carolina. After a turbulent boyhood as an orphan and a British prisoner, he moved west to Tennessee where he soon qualified for law practice but found time for such frontier pleasures as horse racing, cock-fighting and dueling. His marriage to Rachel Donelson Robards in 1791 was complicated by subsequent legal uncertainties about the status of her divorce. During the seventeen-nineties Jackson served in the Tennessee constitutional convention, the federal House of Representatives, the federal Senate and the Tennessee supreme court.

After some years as a country gentleman, living at the Hermitage near Nashville, Jackson in 1812 was given command of Tennessee troops sent against the Creeks. He defeated the Indians at Horseshoe Bend in 1814; subsequently he became a major general and won the Battle of New Orleans over veteran British troops though after the treaty of peace had been signed at Ghent. In 1818 General Jackson invaded Florida, captured Pensacola and hanged two Englishmen named Arbuthnot and

Ambrister, creating an international incident. A presidential boom began for him in 1821 and in its service he returned to the Senate (1823-25). Though he won a plurality of electoral votes in 1824, he lost in the House when Clay threw his strength to Adams; he won easily in 1828 by an electoral vote of 178 to 83.

As President, Jackson greatly expanded the power and prestige of the presidential office and carried through an unexampled program of domestic reform, vetoing the bill to extend the United States Bank, moving toward a hard-money currency policy and checking the program of federal internal improvements. He also vindicated federal authority against South Carolina with its doctrine of nullification and against France on the question of debts. The support given his policies by the workmen of the East as well as by the farmers of the East, West and South resulted in his triumphant re-election in 1832 over Clay by an electoral vote of 219 to 49, with 18 scattering and 2 not cast.

After watching the inauguration of his hand-picked successor, Martin Van Buren, Jackson retired to the Hermitage where he maintained a lively interest in national affairs until his death on June 8, 1845. A tall, dignified man with a drawn and wrinkled face, Jackson has been endowed by partisan historians with a violence and irascibility he appears not to have possessed. His great contribution was to adjust the presidential office and the democratic doctrines of Jefferson to the new situation created by the Industrial Revolution. The standard biographies are by James, Bassett and Parton.

MARTIN VAN BUREN

was born on December 5, 1782, at Kinderhook, New York. After graduating from the village school, he became a law clerk, entered practice in 1803 and soon became active in state politics as state senator and attorney general. In 1821 he was elected to the United States Senate. He threw the support of his efficient political organization, known as the Albany Regency, to William H. Crawford in 1824 and to Jackson in 1828. After leading the opposition to Adams' administration in the Senate, he served briefly as governor of New York and resigned to become Jackson's Secretary of State. He soon became on close personal terms with Jackson and played an important part in turning the Jacksonian program from the lines intended by his original Western backers.

In 1832 Van Buren became Vice President; in 1836, President, with an electoral vote of 170 against 124 scattered among four opponents. The Panic of 1837 overshadowed his term. He attributed it to

the overexpansion of the credit and favored the establishment of an independent treasury as repository for the federal funds. In 1840 he established a ten-hour day on public works. Defeated by Harrison in 1840, he was the leading contender for the Democratic nomination in 1844 until he publicly opposed immediate annexation of Texas and was subsequently beaten by the Southern delegations at the Baltimore convention. This incident increased his growing misgivings about the slave power.

After working behind the scenes among the antislavery Democrats, Van Buren joined in the movement which led to the Free-Soil party and became its candidate for President in 1848. He subsequently returned to the Democratic party while continuing to object to its pro-Southern policy. He died in Kinderhook on July 24, 1862. His *Autobiography* throws valuable sidelights on the political history of the times.

Small, erect, dapper, Van Buren had a reputation for slick politicking which won him such sobriquets as the Little Magician and the Red Fox of Kinderhook; but, as his later career showed, he was capable of taking firm and unpopular stands on public issues. His wife Hannah Hoes, whom he married in 1807, died in 1819.

The standard biographies are by Shepard and Lynch.

WILLIAM HENRY HARRISON

was born in Charles City County, Virginia, on February 9, 1773. Joining the army in 1791, he was active in Indian fighting in the Northwest, became secretary of the Northwest Territory in 1798 and governor of Indiana in 1800. He married Anna Symmes in 1795. Growing discontent over white encroachments on Indian lands led to the formation of an Indian alliance under Tecumseh to resist further aggressions. In 1811 Harrison won a nominal victory over the Indians at Tippecanoe and in 1813 a more decisive one at the Battle of the Thames, where Tecumseh was killed.

After resigning from the army in 1814, Harrison had an obscure career in politics and diplomacy, ending up in twenty years as a county recorder in Ohio. Nominated for President in 1835 as a military hero whom the conservative politicians hoped to be able to control, he ran surprisingly well against Van Buren in 1836. Four years later he defeated Van Buren by an electoral vote of 234 to 60 but caught pneumonia and died in Washington a month after his inauguration, April 4, 1841. Harrison's qualities were those of a soldier rather than of a statesman or political leader. The standard biographies are by Cleaves and Goebel.

JOHN TYLER

was born in Charles City County, Virginia, on March 29, 1790. A William and Mary graduate, he entered law practice and politics, serving in the House of Representatives (1816-21) and later as governor of Virginia (1825-27), and as senator. A thorough-going strict constructionist, he supported Crawford in 1824 and Jackson in 1828 but broke with Jackson over his Bank policy and became a member of the Southern state-rights group which cooperated with the Whigs. In 1836 he resigned from the Senate rather than follow instructions from the Virginia legislature to vote for a resolution expunging censure of Jackson from the Senate record.

Elected Vice President on the Whig ticket in 1840, Tyler succeeded to the presidency on Harrison's death. His strict-constructionist views soon caused a split with the Henry Clay wing of the Whig party and a stalemate on domestic questions. Tyler's more considerable achievements were his support of the Webster-Ashburton Treaty with Britain and his success in bringing about the annexation of Texas through joint congressional resolution.

After his presidency he lived in retirement in Virginia until the outbreak of the Civil War when he emerged briefly as chairman of a peace convention and then as delegate to the provisional Congress of the Confederacy. He died on January 18, 1862. He was married first to Letitia Christian March in 1813 and, two years after her death in 1842, to Julia Gardiner. Witty, amiable, courteous, Tyler was a Virginia gentleman whose presidency was hamstrung by the basic contradiction between his own ideas and those of the party which put him on the ticket as Vice President. The standard biographies are by Chitwood and Tyler.

JAMES KNOX POLK

was born in Mecklenburg County, North Carolina, on November 2, 1795. A graduate of the University of North Carolina, he moved west to Tennessee, was admitted to the bar and soon became prominent in state politics. In 1825 he was elected to the House of Representatives where he opposed Adams and, after 1829, became Jackson's floor leader in the fight against the Bank. In 1835 he became Speaker of the House. In 1839 he was elected governor of Tennessee but was beaten in tries for re-election in 1841 and 1843.

The supporters of Van Buren for the Democratic nomination in 1844 counted on Polk as his running mate; but, when Van Buren's stand on Texas alienated Southern support, the convention swung to Polk on the ninth ballot. He was elected over Henry Clay, the Whig candidate, by an

electoral vote of 170 to 105. Rapidly disillusioning those who thought that he would not run his own administration, Polk proceeded steadily and precisely to achieve four major objectives—the acquisition of California, the settlement of the Oregon question, the reduction of the tariff and the establishment of the independent treasury. He also enlarged the Monroe Doctrine to exclude all non-American intervention in American affairs, whether forcible or not, and he forced Mexico into a war which he waged to a successful conclusion. His wife Sarah Childress, whom he married in 1824, was a woman of charm and ability. Polk died in Nashville, Tennessee, on June 15, 1849.

Serious, hardworking, lacking in color, Polk has long been underrated by historians who mistakenly regarded him as a slaveholders' puppet; in fact, few presidents have so thoroughly controlled their own administration or have so ably accomplished the purposes they set for themselves. Polk's *Diary* reflects the mood and problems of his presidency. The standard biography is by McCormac.

ZACHARY TAYLOR

was born at Montebello, Orange County, Virginia, on November 24, 1784. Embarking on a military career in 1808, Taylor fought in the War of 1812, the Black Hawk War and the Seminole War, holding in between garrison jobs on the frontier or desk jobs in Washington. A brigadier general as a result of his victory over the Seminoles at Lake Okeechobee (1837), Taylor held a succession of Southwestern commands and in 1846 established a base on the Rio Grande, where his forces engaged in hostilities which precipitated the war with Mexico. He captured Monterrey in Sept., 1846, and, disregarding Polk's orders to stay on the defensive, defeated Santa Anna at Buena Vista in February, 1847, ending the war in the northern provinces.

Though Taylor had never cast a vote for President, his party affiliations were Whiggish, and his availability was increased by his difficulties with Polk. He was elected President over the Democrat Lewis Cass by an electoral vote of 163 to 127. During the revival of the slavery controversy, which was to result in the Compromise of 1850, Taylor began to take an increasingly firm stand against appeasing the South; but he died in Washington on July 9, 1850, in the midst of the fight over the Compromise. He married Margaret Mackall Smith in 1810. His bluff and simple soldierly qualities won him the name of Old Rough and Ready. During his brief term as President he displayed a growing insight into political questions. The standard biographies are by Hamilton and by Bent and McKinley.

MILLARD FILLMORE

was born at Locke, Cayuga County, New York, on January 7, 1800. A lawyer, he entered politics as an Antimason under the sponsorship of Thurlow Weed, editor and party boss, and subsequently followed Weed into the Whig party. He served in the House of Representatives (1833-35 and 1837-43) and played a leading role in writing the tariff of 1842. Defeated for governor of New York in 1844, he became comptroller in 1848, was put on the Whig ticket with Taylor as a concession to the Clay wing of the party and became President upon Taylor's death in 1850.

As President, Fillmore broke with Weed and William H. Seward and associated himself with the pro-Southern Whigs, supporting the Compromise of 1850. Defeated for the Whig nomination in 1852, he ran for President in 1856 as candidate of the American or Know-Nothing party, which sought to unite the country against foreigners in the alleged hope of diverting it from the explosive slavery issue. Fillmore opposed Lincoln during the Civil War. He died in Buffalo on March 8, 1874. He was married in 1826 to Abigail Powers, who died in 1853, and in 1858 to Caroline Carmichael McIntosh. Urbane, gracious, colorless and weak, Fillmore was an undistinguished President. The standard biography is by Griggs.

FRANKLIN PIERCE

was born at Hillsboro, New Hampshire, on November 23, 1804. A Bowdoin graduate and lawyer, he won rapid political advancement in the Democratic party, in part because of the prestige of his father, Governor Benjamin Pierce. By 1831 he was Speaker of the New Hampshire House of Representatives; from 1833 to 1837 he served in the federal House and from 1837 to 1842 in the Senate. His wife, Jane Means Appleton, whom he had married in 1834, disliked Washington and the somewhat dissipated life led by Pierce; and in 1842 Pierce, resigning from the Senate, took up a successful law practice in Concord, New Hampshire.

During the Mexican War Pierce was a brigadier general. Thereafter he continued to oppose antislavery tendencies within the Democratic party. As a result, he was the Southern choice to break the deadlock at the Democratic convention of 1852 and was nominated on the 49th ballot. Pierce rolled up 254 electoral votes to 42 for Winfield Scott, the Whig candidate.

As President, Pierce followed a course of appeasing the South at home and of playing with schemes of territorial expansion abroad. The failure of both his foreign and domestic policies prevented his renomination; and he died in Concord, New Hampshire, on October 8, 1869, in relative ob-

scurity. A kindly and courteous person, Pierce was weak, unstable and lacking in presidential qualities. The standard biography is by Nichols.

JAMES BUCHANAN

was born near Mercersburg, Pennsylvania, on April 23, 1791. A Dickinson graduate and a lawyer, he entered Pennsylvania politics as a Federalist. With the disappearance of the Federalist party, he became a Jacksonian Democrat. He served with ability in the House (1821-31), as minister to St. Petersburg (1832-33) and in the Senate (1834-45), and in 1845 became Polk's Secretary of State. Disappointed in the presidential nomination in 1852, Buchanan became minister to Britain in 1853 where he participated with other American diplomats in Europe in drafting the expansionist Ostend Manifesto.

In 1856 Buchanan received the Democratic nomination and won the election, gaining 174 electoral votes to 114 for John C. Frémont, the Republican candidate, and 8 for Millard Fillmore, American party. The growing crisis over slavery presented Buchanan with problems he lacked the will to tackle. His appeasement of the South alienated the Stephen Douglas wing of the Democratic party without reducing Southern militancy on slavery issues. While denying the right of secession, Buchanan also denied that the federal government could do anything about it. He supported the administration during the Civil War and died in Lancaster, Pennsylvania, on June 1, 1868.

The only President to remain a bachelor throughout his term, Buchanan used his charming niece Harriet Lane as White House hostess. Legalistic, indecisive and timorous as President, Buchanan filled his other public offices capably. The standard biography is by Curtis.

ABRAHAM LINCOLN

was born in Hardin (now Larue) County, Kentucky, on February 12, 1809. His family moved to Indiana and then to Illinois, and Lincoln gained what education he could along the way. While reading law, he worked in a store, managed a mill, surveyed, and split rails. In 1834 he went to the state legislature as a Whig and became the party's floor leader. For the next twenty years he remained in law practice in Springfield, except for a single term (1847-49) in Congress where he denounced the Mexican War. In 1855 he was a candidate for senator and in 1856 he joined the new Republican party.

A leading but unsuccessful candidate for the vice-presidential nomination with Frémont, Lincoln gained national attention in 1858 when, as Republican candidate for

senator from Illinois, he engaged in a series of debates with Stephen A. Douglas, the Democratic candidate. He lost the senatorial election, but continued to prepare the way for the 1860 Republican convention and was rewarded with the presidential nomination on the third ballot. He polled 180 electoral votes, as against the 128 of his three opponents, but had only a plurality of the popular vote.

From the start, Lincoln made clear that, unlike Buchanan, he believed the national government had the power to crush the rebellion. Not an abolitionist, he held the slavery issue subordinate to that of preserving the Union but soon perceived that the war could not be brought to a successful conclusion without freeing the slaves. His administration was hampered by the incompetence of many Union generals, the inexperience of the troops and the harassing political tactics both of the Republican Radicals, who favored a hard policy toward the South, and the Democratic Copperheads, who desired a negotiated peace. The Gettysburg Address of November 19, 1863, marks the high point in the record of American eloquence. His patient search for a winning combination finally brought Generals Ulysses S. Grant and William T. Sherman to the top; and their series of victories in 1864 dispelled the mutterings from both Radicals and Peace Democrats which at one time seemed to threaten Lincoln's re-election. He received 212 electoral votes to 21 for George B. McClellan, the Democratic candidate. His inaugural address urged leniency toward the South: "With malice toward none, with charity for all . . . let us strive on to finish the work we are in; to bind up the nation's wounds . . ." This policy aroused growing opposition on the part of the Republican Radicals, but Lincoln was shot by John Wilkes Booth at Ford's Theater, Washington, on April 14, 1865, before the matter could be put to test. He died the following day.

Lincoln's marriage to Mary Todd in 1842 was often unhappy and turbulent, in part because of his wife's pronounced instability. By his remarkable literary artistry, his essential patience and devotion, his profound sense of the importance of government by, for and of the people, by the manner of his life and of his death, Lincoln has won a unique place in the hearts of Americans. The standard biographies are by Sandburg, Herndon, Nicolay and Hay.

ANDREW JOHNSON

was born at Raleigh, North Carolina, on December 29, 1808. Self-educated, he became a tailor in Greeneville, Tennessee, but soon went into politics where he rose steadily. From 1843 to 1853 he served in the House of Representatives, 1853-57 as governor of Tennessee and in 1857 was

elected Senator. Politically he was a Jacksonian Democrat, and his specialty was the fight for a more equitable land policy. Alone among the Southern Senators, he stood by the Union during the Civil War. In 1862 he became war governor of Tennessee and carried out a thankless and difficult job with great courage. Johnson became Lincoln's running mate in 1864 as result of an attempt to give the ticket a nonpartisan and nonsectional character. Succeeding to the presidency on Lincoln's death, Johnson sought to carry out his policy but without his political skill. The result was a hopeless conflict with the Radical Republicans who dominated Congress, passed measures over Johnson's vetoes and attempted to limit the power of the executive concerning appointments and removals. The conflict culminated with Johnson's impeachment for attempting to remove his disloyal Secretary of War in defiance of the Tenure of Office Act which required senatorial concurrence for such dismissals. The opposition failed by one vote to get the two-thirds necessary for conviction.

After his presidency, Johnson maintained an interest in politics and in 1875 was elected to the Senate. He died near Carter Station, Tennessee, on July 31, 1875. He married Eliza McCordle in 1827. An honest, courageous and intelligent man, Johnson lacked the tact, patience and self-control to be an effective President.

The standard biographies are by Winston, Stryker and Milton.

ULYSSES SIMPSON GRANT

was born (as Hiram Ulysses Grant) at Point Pleasant, Ohio, on April 27, 1822. He finished West Point in 1843 and served without particular distinction in the Mexican War. In 1848 he married Julia Dent. He resigned from the army in 1854, following warnings from his commanding officer about his drinking habits, and for the next six years held a wide variety of jobs in the Middle West. With the outbreak of the Civil War, he sought a command and soon, to his surprise, was made a brigadier general. His continuing successes in the western theaters, culminating in the capture of Vicksburg in 1863, brought him national fame and soon the command of all the Union armies. His dogged, implacable policy of concentrating on dividing and destroying the Confederate armies brought the war to an end in 1865. In 1866 he was made full general.

Grant's relations with Johnson grew steadily worse; and in 1868, as the Republican candidate for President, Grant was elected with 214 electoral votes to 80 for the Democrat Horatio Seymour. From the start Grant showed his unfitness for the office. His cabinet was weak, his do-

mestic policy was confused, many of his intimate associates were corrupt. The notable achievement in foreign affairs was the settlement of controversies with Great Britain in the Treaty of London (1871), negotiated by his able Secretary of State, Hamilton Fish.

Nominated for a second term, he defeated Horace Greeley, the Democratic and Liberal Republican candidate, 286 votes to 63. The Panic of 1873 created difficulties for his second term.

After retiring from office, Grant toured Europe for two years and returned in time to accede to a third-term boom, but was beaten in the convention of 1880. Illness and bad business judgment darkened his last years, but he worked steadily at the *Personal Memoirs* which were to be so successful when published after his death at Mount McGregor, near Saratoga, New York, on July 23, 1885. Inarticulate, taciturn, loyal to his friends, he was an able general who should never have accepted the presidency. The standard biographies are by Hesseltine and Woodward.

RUTHERFORD BIRCHARD HAYES

was born at Delaware, Ohio, on October 4, 1822. A graduate of Kenyon College and the Harvard Law School, he practiced law in Sandusky and then in Cincinnati, Ohio. In 1852 he married Lucy Webb. A Whig, he joined the Republican party in 1855. During the Civil War he rose to the rank of major general. He served in Congress from 1865 to 1867 and then confirmed a reputation for honesty and efficiency in two terms as governor of Ohio. His re-election as governor in 1876 made him the logical candidate for those Republicans who wished to stop James G. Blaine in 1876, and he was successfully nominated.

The result of the election was for some time in doubt and hinged upon disputed returns from South Carolina, Louisiana, Florida and Oregon. Samuel J. Tilden, the Democratic candidate, had the larger popular vote but was adjudged by the strictly partisan decisions of the Electoral Commission to have one less electoral vote, 185 to 184. The national acceptance of this result was due in part to the general understanding that Hayes would pursue a conciliatory policy toward the South. He withdrew the troops from the South, took a conservative position on financial and labor issues and urged civil service reform.

Hayes served only one term by his own wish and spent the rest of his life in various humanitarian endeavors. He died in Fremont, Ohio, on January 17, 1893. A hard-working, conscientious, sensible man, Hayes represented the best type of Republican of his day. The standard biographies are by Eckenrode and Williams.

JAMES ABRAM GARFIELD,

the last President to be born in a log cabin, was born at Cuyahoga County, Ohio, on November 19, 1831. A Williams graduate, he taught school for a time and entered Republican politics in Ohio. In 1858 he married Lucretia Rudolph. During the Civil War he had a promising career, rising to the rank of major general of volunteers; but in 1863 he was elected to the House of Representatives where he served until 1880. His oratorical and parliamentary abilities soon made him the leading Republican in the House, though his record was marred by his unorthodox acceptance of a fee in the DeGolyer paving contract case and by suspicions of his complicity in the Cr dit Mobilier scandal.

In 1880 Garfield was elected to the Senate, but instead became the presidential candidate on the 36th ballot as a result of a deadlock in the Republican convention. He gained 214 electoral votes to 155 for General Winfield Scott Hancock, the Democratic candidate. Garfield's administration was barely under way when he was shot by Charles J. Guiteau, a disappointed office seeker, in July. He died in Elberon, New Jersey, on September 19, 1881. An attractive and eloquent man, he was much beloved in his day.

The standard biographies are by Smith and Caldwell.

CHESTER ALAN ARTHUR

was born at Fairfield, Vermont, on October 5, 1830. A graduate of Union College, he became a successful New York lawyer. In 1859 he married Ellen Herndon. During the Civil War he held administrative jobs in the Republican state administration and in 1871 was appointed collector of the Port of New York by Grant. This post gave him control over considerable patronage; and, though not personally corrupt, Arthur managed his power in the interests of the New York machine so openly that President Hayes in 1877 called for an investigation, and in 1878 Arthur was suspended from his responsibilities.

In 1880 Arthur was nominated for Vice President in the hope of conciliating the followers of Grant and the powerful New York machine. As President on Garfield's assassination, Arthur, stepping out of his familiar role as spoilsman, backed civil service reform, reorganized the cabinet and prosecuted political associates accused of post office graft. Losing machine support and failing to gain the reformers, he was not renominated. He died in New York City on November 18, 1886. A tall, handsome, dignified man with real administrative abilities, he was a better President than his previous record promised. The standard biography is by Howe.

STEPHEN GROVER CLEVELAND

was born at Caldwell, New Jersey, on March 18, 1837. He was admitted to the bar in Buffalo, New York, in 1859 and lived there as a lawyer, with occasional incursions into Democratic politics, for more than twenty years. He did not participate in the Civil War. As mayor of Buffalo in 1881, he carried through a reform program so ably that the Democrats ran him successfully for governor in 1882. In 1884 he won the Democratic nomination for President. The campaign contrasted Cleveland's spotless public career with the uncertain record of James G. Blaine, the Republican candidate, and Cleveland received enough Mugwump (independent Republican) support to win by 219 to 182 electoral votes.

As President, Cleveland pushed civil service reform, opposed the pension grab and attacked the high tariff rates. While in the White House he married Frances Folsom (1886). Renominated in 1888, Cleveland was defeated by Benjamin Harrison, polling more popular but fewer electoral votes. In 1892 he was re-elected over Harrison, 277 to 145, with 22 votes for James B. Weaver, the Populist candidate. When the Panic of 1893 burst upon the country, Cleveland's attempts to solve it by sound-money measures alienated the free-silver wing of the party, while his tariff policy alienated the protectionists. In 1894 he sent troops to break the Pullman strike. In foreign affairs his firmness caused Great Britain to back down in the Venezuela border dispute.

In his last years Cleveland was an active and much respected public figure. He died in Princeton, New Jersey, on June 24, 1908. An honest, stubborn, high-principled man, Cleveland was an old-fashioned liberal in the nineteenth-century sense who was baffled by the new problems of industrial society. The standard biographies are by Nevins and McElroy.

BENJAMIN HARRISON

was born in North Bend, Ohio, on August 20, 1833, the grandson of William Henry Harrison. A graduate of Miami University, he took up the law in Indiana and became active in Republican politics. In 1853 he married Caroline Lavinia Scott. During the Civil War he rose to the rank of brigadier general. A sound-money Republican, he was elected senator from Indiana in 1880 and in 1888 received the Republican nomination for President on the 8th ballot. Though behind on the popular vote, he won over Grover Cleveland in the electoral college by 233 to 168.

As President, Benjamin Harrison failed to please either the bosses or the reform element in the party. In foreign affairs he backed Secretary of State Blaine whose policy foreshadowed later American im-

perialism. In 1892 Harrison was renominated, but Cleveland beat him in the election. His wife died in the White House in 1892, and Harrison married her niece, Mary Scott (Lord) Dimmick, in 1896. After his presidency, he resumed law practice. He died in Indianapolis, Indiana, on March 13, 1901. Harrison was an honest man of very medium abilities.

WILLIAM MCKINLEY

was born in Niles, Ohio, on January 29, 1843. A graduate of Allegheny College, he rose from the ranks to become a major in the Civil War. Subsequently he opened a law office in Canton, Ohio, and in 1871 married Ida Saxton. Elected to Congress in 1876, he served there steadily till 1891, except for 1883-85. His faithful advocacy of business interests culminated in the passage of the highly protective McKinley Tariff of 1890. With the support of Mark Hanna, a shrewd Cleveland businessman interested in safeguarding tariff protection, McKinley became governor of Ohio in 1892 and Republican presidential candidate in 1896. The business community, alarmed by the progressivism of William Jennings Bryan, the Democratic candidate, spent considerable money to assure McKinley's victory which was by the margin of 271 to 176 in the electoral college.

The chief event of McKinley's administration was the war with Spain which resulted in our acquisition of the Philippines and other islands. With imperialism as an issue, McKinley defeated Bryan again in the election of 1900 by 292 to 155. On September 6, 1901, he was shot at Buffalo by Leon F. Czolgosz, an anarchist, and he died there on September 14.

The standard biography is by Olcott.

THEODORE ROOSEVELT

was born in New York City on October 27, 1858. A Harvard graduate, he was early interested in ranching, in politics and in writing picturesque historical narratives. He was a Republican member of the New York Assembly in 1882-84, an unsuccessful candidate for mayor of New York in 1886, a U. S. Civil Service Commissioner under Harrison, Police Commissioner of New York City in 1895 and Assistant Secretary of the Navy under McKinley in 1897. After exuding a belligerence which helped bring on the war with Spain, he resigned in 1898 to help organize a volunteer regiment named the Rough Riders and take a more direct part in the war. Always publicity-shrewd, he won the New York gubernatorial nomination in 1898 in spite of pronounced lack of enthusiasm on the part of the bosses.

After two years of T.R. in Albany, the New York bosses succeeded in getting him the vice-presidential nomination in 1900.

Roosevelt accepted it with reluctance, feeling that his career had been ruined. As President on McKinley's assassination, he perceived the new popular mood of progressivism and initiated a policy of trust busting, designed to control giant corporations. He also strengthened government powers over interstate commerce and launched a conservation program to save natural resources. In foreign affairs he pursued a truculent policy, permitting the instigation of a revolt in Panamá to dispose of Colombian objections to the Panama Canal and helping to maintain the balance of power in the East by bringing the Russo-Japanese war to an end. In 1904 he decisively defeated Alton B. Parker, his conservative Democratic opponent, by an electoral margin of 336 to 140.

Following his second term he went big-game hunting in Africa and toured Europe. On his return to the United States, his increasing coldness toward Taft led him to overlook his earlier disclaimer of third-term ambitions and to re-enter politics. Defeated by the machine in the Republican convention of 1912, he organized the Progressive party and polled more votes than Taft, though the split brought about the election of Wilson. From 1915 on, Roosevelt strongly favored intervention in the European war. He became deeply embittered at Wilson's refusal to allow him to raise a volunteer division. He died in Oyster Bay, New York, on January 6, 1919. He was married twice: in 1880 to Alice Hathaway Lee, who died in 1884; and in 1886 to Edith Kermit Carow.

The athletic advocate of the strenuous life, with his high voice, prominent teeth and thick glasses, Roosevelt captured the imagination of the American people. He was one of the great personalities of American history. The standard biography is by Pringle.

WILLIAM HOWARD TAFT

was born in Cincinnati, Ohio, on September 15, 1857. A Yale graduate, he entered Ohio Republican politics in the eighteen eighties. In 1886 he married Helen Herron. From 1887 to 1890, he served on the Ohio superior court; 1890-92, as solicitor general of the United States; 1892-1900, on the federal circuit court. In 1900 McKinley appointed him president of the Philippine Commission and in 1901 governor general. Taft had great success in pacifying the Filipinos, solving the problem of the church lands, improving economic conditions and establishing limited self-government. His period as Secretary of War 1904-08 further demonstrated his capacity as administrator and conciliator; and he was Roosevelt's hand-picked successor in 1908.

In the election he polled 321 electoral votes to 162 for William Jennings Bryan.

As President, though he carried on many of Roosevelt's policies, Taft got into increasing trouble with the progressive wing of the party and displayed mounting irritability and indecision. After his defeat in 1912, he became professor of constitutional law at Yale. In 1921 he was appointed Chief Justice of the United States. He died in Washington on March 8, 1930. Enormously large, deliberate and good-humored, Taft excelled as an administrator and judge, not as a political leader.

The standard biography is by Pringle.

THOMAS WOODROW WILSON

was born in Staunton, Virginia, on December 28, 1856. A Princeton graduate, he turned from law practice to post-graduate work in political science at Johns Hopkins University, receiving his Ph.D. in 1886. He taught at Bryn Mawr, Wesleyan and Princeton, and in 1902 was made president of Princeton. After an unsuccessful attempt to democratize the social life of Princeton, he welcomed an invitation in 1910 to be the Democratic gubernatorial candidate in New Jersey. His success in fighting the machine and putting through a reform program attracted national attention.

In 1912, after a protracted contest at Baltimore, Wilson won the Democratic nomination on the 48th ballot. In the election he received 435 electoral votes to 83 for Roosevelt and 8 for Taft. During his first term Wilson proceeded under the standard of the New Freedom to enact a program of domestic reform, including the Federal Reserve Act, the Clayton Antitrust Act, the establishment of the Federal Trade Commission and other measures designed to restore competition in the face of the great monopolies. In foreign affairs, while privately sympathetic with the Allies, he strove to maintain strict neutrality in the European war and warned both sides against encroachments on American interests.

Re-elected in 1916 as a peace candidate, he tried to mediate between the warring nations; but, when the Germans resumed unrestricted submarine warfare in 1917, Wilson brought the United States into what he now believed was a war to make the world safe for democracy. He supplied the classic formulations of Allied war aims; and the armistice of November, 1918, was negotiated on the basis of Wilson's Fourteen Points. In 1919 he strove at Versailles to lay the foundations for enduring peace. He accepted the imperfections of the Versailles Treaty in the expectation that they could be remedied by action within the

League of Nations. He probably could have secured ratification of the treaty if he had adopted a more conciliatory attitude toward the mild reservationists; but his insistence on all or nothing eventually caused the diehard isolationists and diehard Wilsonites to unite in rejecting a compromise.

In September, 1919, Wilson suffered a paralytic stroke which limited his future activity. After the presidency he lived on in retirement in Washington, dying February 3, 1924. He was married twice—in 1885 to Ellen Louise Axson, who died in 1914, and in 1915 to Edith Bolling Galt. A man of high principle, inspiring eloquence and great intellectual ability, Wilson was the first leader to fire the imagination of the masses of the world with the vision of world peace. The standard biography is by Baker.

WARREN GAMALIEL HARDING

was born in Morrow County, Ohio, on November 2, 1865. After attending Ohio Central College, Harding became interested in journalism and in 1884 bought the *Marion (Ohio) Star*. In 1891 he married a wealthy widow, Florence Kling De Wolfe. As his paper prospered, he entered Republican politics, serving as state senator (1899-1903), and as lieutenant governor (1904-06). In 1910 he was defeated for governor but in 1914 was elected to the Senate. His reputation as orator made him keynoter in the 1916 convention.

When the 1920 Republican convention was deadlocked between Leonard Wood and Frank O. Lowden, Harding was made the dark-horse nominee on his solemn affirmation that there was no reason in his past that he should not be. Straddling the League question, Harding was elected easily, with 404 electoral votes to 127 for James M. Cox, his Democratic opponent. His cabinet contained some able men, but also some manifestly unfit for public office. Harding's own intimates were mediocre when they were not corrupt. The impending disclosure of scandals in the Interior and Justice departments and in the Veterans' Bureau, as well as political setbacks, profoundly worried him. On his return from Alaska in 1923, he died suddenly at San Francisco on August 2. A handsome and genial man, indiscriminating in his associates, lacking in political ideas or fortitude, Harding was totally unfitted for the presidency.

JOHN CALVIN COOLIDGE

was born in Plymouth, Vermont, on July 4, 1872. An Amherst graduate, he went into law practice at Northampton, Massachusetts, in 1897. He married Grace Anna Goodhue in 1905. He entered Republican

state politics, becoming successively mayor of Northampton, state senator, lieutenant governor and, in 1919, governor. His conduct in regard to the Boston police strike in 1919 won him a somewhat undeserved reputation for decisive action and brought him the Republican vice-presidential nomination in 1920. After Harding's death Coolidge handled the Washington scandals with care and finally managed to save the Republican party from public blame for the widespread corruption.

In 1924 Coolidge won re-election without difficulty, getting 382 electoral votes to 136 for the Democrat, John W. Davis, and 13 for Robert M. La Follette running on the Progressive ticket. His second term, like his first, was characterized by a general satisfaction with the existing economic order. He stated that he did not choose to run in 1928.

After his presidency, Coolidge lived quietly in Northampton, writing an unilluminating *Autobiography* and conducting a syndicated column. He died in Northampton, Massachusetts, on January 5, 1933. His dry, Yankee humor, his frugality and glumness made him a paradoxically popular President in the boom period. The standard biographies are by White and Fuess.

HERBERT CLARK HOOVER

was born at West Branch, Iowa, an August 10, 1874. A Stanford graduate, he worked from 1895 to 1913 as a mining engineer and consultant in North America, Europe, Asia, Africa and Australia. In 1899 he married Lou Henry. During the First World War he served with distinction as chairman of the American Relief Committee in London, as chairman of the Commission for Relief in Belgium and as United States Food Administrator. His political affiliations were still sufficiently indeterminate for him to be mentioned as a possibility for both Republican and Democratic nominations in 1920; but after the election he served both Harding and Coolidge as Secretary of Commerce.

In the election of 1928 Hoover received 444 electoral votes to 87 for Alfred E. Smith, the Democratic candidate. He soon faced the worst depression in the nation's history; but his attacks upon it were hampered by his devotion to the theory that the forces which brought the crisis would soon bring the revival, and then by his belief that in too many areas the federal government had no power to act. In a succession of vetoes he struck down measures proposing a national employment system or national relief; he reduced income tax rates; and only at the end of his term did he yield to popular pressure and set up agencies such as the Reconstruction Finance Corporation to make emergency loans to assist business.

After his 1932 defeat, Hoover returned to private business. In 1946, President Truman charged him with various world food missions; and from 1947-49, he was head of the Commission on Organization of the Executive Branch of the Government.

FRANKLIN DELANO ROOSEVELT

was born in Hyde Park, New York, on January 30, 1882. A Harvard graduate, he attended Columbia Law School and was admitted to the New York bar. In 1910 he was elected to the New York state senate as a Democrat. Re-elected in 1912, he was appointed Assistant Secretary of the Navy by Woodrow Wilson in 1913. In 1920 his radiant personality and his war services resulted in his nomination for Vice President as James M. Cox's running mate. After his defeat, he returned to law practice in New York. In August, 1921, Roosevelt was stricken with infantile paralysis while at Campobello, New Brunswick. After a long and gallant fight against the disease he recovered partial use of his legs. In 1924 and 1928 he led the fight at the Democratic national conventions for the nomination of Governor Alfred E. Smith of New York; and in 1928 Roosevelt was himself induced to run for governor of New York. He was elected and was re-elected in 1930.

In 1932 Roosevelt received the Democratic nomination for President and immediately launched a campaign which brought new spirit to a weary and discouraged nation. He won the election over Herbert Hoover by a margin of 472 to 59 in the electoral college. His first term was characterized by an unfolding of the New Deal program, with greater benefits for labor, the farmers and the unemployed, and the progressive estrangement of most of the business community.

At an early stage Roosevelt became aware of the menace to world peace involved in the existence of totalitarian fascism, and from 1937 on he tried to focus public attention on the trend of events in Europe and Asia. As a result he was widely denounced as a warmonger. He was re-elected in 1936 over Alfred M. Landon by the overwhelming electoral margin of 523 to 8; and the gathering international crisis caused him to decide to run again in 1940. He defeated Wendell L. Willkie, 449 to 82.

Roosevelt's program to bring maximum aid to Britain and, after June, 1941, to Russia was opposed, until the Japanese attack on Pearl Harbor restored national unity. During the war Roosevelt shelved the New Deal in the interests of conciliating the business community, both in order to get full production during the war and to prepare the way for a united acceptance of the peace settlements after

the war. A series of conferences with Winston Churchill and Joseph Stalin laid down the bases for the postwar world. In 1944 he was elected to a fourth term, running against Governor Thomas E. Dewey.

On April 12, 1945, Roosevelt died at Warm Springs, Georgia, shortly after his return from the Yalta Conference. His wife, Anna Eleanor Roosevelt, whom he married in 1905, is a woman of great ability who made significant contributions to her husband's policies. No President has been faced with so many staggering responsibilities, both at home and abroad, as Franklin Roosevelt.

HARRY S. TRUMAN

was born on a farm near Lamar, Missouri, on May 8, 1884. During the First World War he served in France with the 129th Field Artillery. After engaging briefly and unsuccessfully in the haberdashery business in Kansas City, Truman entered local politics. Under the sponsorship of Thomas Pendergast, Democratic boss of Missouri, he held a number of local offices, preserving his personal honesty in the midst of a notoriously corrupt political machine. In 1934 he was elected to the Senate and was re-elected in 1940. During his first term he was a loyal but quiet supporter of the New Deal; but in the course of his second term, an appointment as head of a Senate committee to investigate war production brought out his special qualities of honesty, common sense and hard work, and he won widespread respect.

Elected Vice President in 1944, Truman became President upon Roosevelt's death in 1945 and immediately had to face complex postwar problems, both domestic and foreign. His first attempts did not meet with marked success, and the Republicans won control of Congress in 1946. The next two years were distinguished by the Truman Doctrine, the Marshall Plan and civil-rights proposals; and his general record, highlighted by a vigorous Fair Deal campaign, brought about his unexpected and impressive re-election in 1948.

Truman's second term was primarily concerned with the Cold War with the Soviet Union, the implementing of the North Atlantic Pact, the United Nations police action in Korea, and the vast rearmament program with its accompanying problems of economic stabilization.

On Mar. 29, 1952, Truman stunned the nation with his announcement, made at the annual Jefferson-Jackson Day dinner in Washington, that he would not be a candidate for the 1952 Democratic nomination.

For a biography of the winner of the 1952 Presidential election, see Biographies in the index.

Presidents and Vice Presidents of the U. S.

Presidents & (parties) ¹	Born	State of birth	Died	Term	Age at inaug.	Age at death	Vice Presidents ²
1. Washington (F) ³	Feb. 22, 1732	Va.	Dec. 14, 1799	1789-1797	57	67	1. John Adams
2. J. Adams (F)	Oct. 30, 1735	Mass.	July 4, 1826	1797-1801	61	90	2. Thomas Jefferson ⁴
3. Jefferson (D-R)	Apr. 13, 1743	Va.	July 4, 1826	1801-1809	57	83	3. Aaron Burr
4. Madison (D-R)	Mar. 16, 1751	Va.	June 28, 1836	1809-1817	57	85	4. George Clinton
5. Monroe (D-R)	Apr. 28, 1758	Va.	July 4, 1831	1817-1825	58	73	5. Elbridge Gerry ⁵
6. J. Q. Adams (D-R)	July 11, 1767	Mass.	Feb. 23, 1848	1825-1829	57	80	6. Daniel D. Tompkins
7. Jackson (D)	Mar. 15, 1767	S. C.	June 8, 1845	1829-1837	61	78	7. John C. Calhoun
8. Van Buren (D)	Dec. 5, 1782	N. Y.	July 24, 1862	1837-1841	54	79	8. Martin Van Buren
9. W. H. Harrison (W) ⁶	Feb. 9, 1773	Va.	Apr. 4, 1841	1841-1841	68	68	9. Richard M. Johnson
10. Tyler (W)	Mar. 29, 1790	Va.	Jan. 18, 1862	1841-1845	51	71	10. John Tyler
11. Polk (D)	Nov. 2, 1795	N. C.	June 15, 1849	1845-1849	49	53	11. George M. Dallas
12. Taylor (W) ⁸	Nov. 24, 1784	Va.	July 9, 1850	1849-1850	64	65	12. Millard Fillmore
13. Fillmore (W)	Jan. 7, 1800	N. Y.	Mar. 8, 1874	1850-1853	50	74	13. William R. King ⁹
14. Pierce (D)	Nov. 23, 1804	N. H.	Oct. 8, 1869	1853-1857	48	64	14. John C. Breckinridge
15. Buchanan (D)	Apr. 23, 1791	Pa.	June 1, 1868	1857-1861	65	77	15. Hannibal Hamlin
16. Lincoln (R) ¹⁰	Feb. 12, 1809	Ky.	Apr. 15, 1865	1861-1865	52	56	16. Andrew Johnson
17. Johnson (R)	Dec. 29, 1808	N. C.	July 31, 1875	1865-1869	56	66	17. Schuyler Colfax
18. Grant (R)	Apr. 27, 1822	Ohio	July 23, 1885	1869-1877	46	63	18. Henry Wilson ¹¹
19. Hayes (R)	Oct. 4, 1822	Ohio	Jan. 17, 1893	1877-1881	54	70	19. William A. Wheeler
20. Garfield (R) ¹²	Nov. 19, 1831	Ohio	Sept. 19, 1881	1881-1881	49	49	20. Chester A. Arthur
21. Arthur (R)	Oct. 5, 1830	Vt.	Nov. 18, 1886	1881-1885	50	56	21. Thomas A. Hendricks ¹³
22. Cleveland (D)	Mar. 18, 1837	N. J.	June 24, 1908	1885-1889	47	71	22. Levi P. Morton
23. B. Harrison (R)	Aug. 20, 1833	Ohio	Mar. 13, 1901	1889-1893	55	67	23. Adlai E. Stevenson
24. McKinley (R) ¹⁴	Jan. 29, 1843	Ohio	Sept. 14, 1901	1893-1897	54	58	24. Garret A. Hobart ¹⁵
25. T. Roosevelt (R)	Oct. 27, 1858	N. Y.	Jan. 6, 1919	1901-1909	42	60	25. Theodore Roosevelt
26. Taft (R)	Sept. 15, 1857	Ohio	Mar. 8, 1930	1909-1913	51	72	26. Charles W. Fairbanks
27. Wilson (D)	Dec. 28, 1856	Va.	Feb. 3, 1924	1913-1921	56	67	27. James S. Sherman ¹⁷
28. Harding (R) ⁸	Nov. 2, 1865	Ohio	Aug. 2, 1923	1921-1923	55	57	28. Thomas R. Marshall
29. Coolidge (R)	July 4, 1872	Vt.	Jan. 5, 1933	1923-1929	51	60	29. Calvin Coolidge
30. Hoover (R)	Aug. 10, 1874	Iowa		1929-1933	54	..	30. Charles G. Dawes
31. F. D. Roosevelt (D) ⁸	Jan. 30, 1882	N. Y.	Apr. 12, 1945	1933-1945	51	63	31. Charles Curtis
32. Truman (D)	May 8, 1884	Mo.		1945-1953	60	..	32. John N. Garner
							33. Henry A. Wallace
							34. Harry S. Truman
							35. Alben W. Barkley

¹ F—Federalist; D—R—Democratic-Republican; D—Democratic; W—Whig; R—Republican. ² Same party as President, except Jefferson. ³ No party for first election. The party system in the U. S. made its appearance during Washington's first term. ⁴ Democratic-Republican. Only Vice President of different party from President. ⁵ Died in office Apr. 20, 1812. ⁶ Died in office Nov. 23, 1814. ⁷ Resigned Dec. 28, 1832, to become U. S. Senator. ⁸ Died in office. ⁹ Died in office Apr. 18, 1853. ¹⁰ Died in office (shot Apr. 14 by John Wilkes Booth). ¹¹ Died in office Nov. 22, 1875. ¹² Died in office (shot July 2 by Charles J. Guiteau). ¹³ Died in office Nov. 25, 1885. ¹⁴ Cleveland, in the second of his nonconsecutive terms, is sometimes considered the 24th President, McKinley the 25th, and so on to Truman, the 33rd President with such a system of counting. ¹⁵ Died in office (shot Sept. 6 by Leon F. Czolgosz). ¹⁶ Died in office Nov. 21, 1899. ¹⁷ Died in office Oct. 30, 1912.

Presidential Veto Power

When the President vetoes a bill, he must send it back to the house of origin with his reasons. If the veto is overridden by a two-thirds vote in each house, the bill becomes a law.

If, while Congress is still in session, the President keeps a bill for 10 days, Sundays excepted, without signing it, it becomes a law. However, if Congress adjourns within the 10-day period, the bill is killed. This is known as a *pocket veto*.

Annual Salaries of Federal Officials

President of the U. S.	\$100,000 ¹
Vice President of the U. S.	30,000 ²
Cabinet members	22,500
Undersecretaries of executive departments	17,500
Deputy Secretary of Defense	20,000
Secretary of the Army	18,000
Secretary of the Navy	18,000
Secretary of the Air Force	18,000
Senators	12,500
Representatives	12,500
Speaker of the House	30,000
Chief Justice of the Supreme Court	25,500
Associate Justices of the Supreme Court	25,000

¹ Plus \$50,000 for expenses. ² Plus \$10,000 for expenses.

Wives of the Presidents of the United States

President	Wife's name	Year and place of birth	Married	Died	Sons	Daughters
Washington	Mrs. Martha Dandridge Custis	1732, Va.	1759	1802	..	..
John Adams	Abigail Smith	1744, Mass.	1764	1818	3	2
Jefferson	Mrs. Martha Wayles Skelton	1748, Va.	1772	1782	1	5
Madison	Mrs. Dorothy "Dolly" Payne Todd	1772, N. C.	1794	1849	..	..
Monroe	Eliza Kortright	1768, N. Y.	1786	1830	..	2
J. Q. Adams	Louisa Catherine Johnson	1775, England	1797	1852	3	1
Jackson	Mrs. Rachel Donelson Robards	1767, Va.	1791	1828	..	..
Van Buren	Hannah Hoes	1783, N. Y.	1807	1819	4	..
W. H. Harrison	Anna Symmes	1775, N. J.	1795	1864	6	4
Tyler	Letitia Christian	1790, Va.	1813	1842	3	4
	Julia Gardiner	1820, N. Y.	1844	1889	5	2
Polk	Sarah Childress	1803, Tenn.	1824	1891	..	..
Taylor	Margaret Smith	1788, Md.	1810	1852	1	5
Fillmore	Abigail Powers	1798, N. Y.	1826	1853	1	1
	Mrs. Caroline Carmichael McIntosh	1813, N. J.	1858	1881	..	..
Pierce	Jane Means Appleton	1806, N. H.	1834	1863	3	..
Buchanan	(Unmarried)	....	....	....	..	..
Lincoln	Mary Todd	1818, Ky.	1842	1882	4	..
Johnson	Eliza McCards	1810, Tenn.	1827	1876	3	2
Grant	Julia Dent	1826, Mo.	1848	1902	3	1
Hayes	Lucy Ware Webb	1831, Ohio	1852	1889	7	1
Garfield	Lucretia Rudolph	1832, Ohio	1858	1918	5	2
Arthur	Ellen Lewis Herndon	1837, Va.	1859	1880	2	1
Cleveland	Frances Folsom	1864, N. Y.	1886	1947	2	3
B. Harrison	Caroline Lavinia Scott	1832, Ohio	1853	1892	1	1
	Mrs. Mary Scott Lord Dimmick	1858, Pa.	1896	1948	..	1
McKinley	Ida Saxton	1847, Ohio	1871	1907	..	2
T. Roosevelt	Alice Hathaway Lee	1861, Mass.	1880	1884	..	1
	Edith Kermit Carow	1861, Conn.	1886	1948	4	1
Taft	Helen Herron	1861, Ohio	1886	1943	2	1
Wilson	Ellen Louise Axson	1860, Ga.	1885	1914	..	3
	Mrs. Edith Bolling Galt	1872, Va.	1915	....	..	..
Harding	Mrs. Florence Kling DeWolfe	1860, Ohio	1891	1924	..	..
Coolidge	Grace Anna Goodhue	1879, Vt.	1905	....	2	..
Hoover	Lou Henry	1875, Iowa	1899	1944	2	..
F. D. Roosevelt	Anna Eleanor Roosevelt	1884, N. Y.	1905	....	5	1
Truman	Bess Wallace	1885, Mo.	1919	....	..	1

National Committee Chairmen Since 1916

Source: Republican and Democratic National Committees.

Chairman and (state)	Term	Chairman and (state)	Term
Republican		Republican (Contd.)	
William R. Willcox (N. Y.)	1916-18	Guy G. Gabrielson (N. J.)	1949-52
Will Hays (Ind.)	1918-21	Arthur E. Summerfield (Mich.)	1952-
John T. Adams (Iowa)	1921-24	Democratic	
William M. Butler (Mass.)	1924-28	Vance McCormick (Pa.)	1916-19
Hubert Work (Colo.)	1928-29	Homer Cummings (Conn.)	1919-20
Claudius H. Huston (Tenn.)	1929-30	George White (Ohio)	1920-21
Simeon D. Fess (Ohio)	1930-32	Cordell Hull (Tenn.)	1921-24
Everett Sanders (Ind.)	1932-34	Clem Shaver (W. Va.)	1924-28
Henry P. Fletcher (Pa.)	1934-36	John J. Raskob (N. Y.)	1928-32
John Hamilton (Kans.)	1936-40	James A. Farley (N. Y.)	1932-40
Joseph W. Martin, Jr. (Mass.)	1940-42	Edward J. Flynn (N. Y.)	1940-43
Harrison E. Spangler (Iowa)	1942-44	Frank C. Walker (Mont.)	1943-44
Herbert Brownell, Jr. (N. Y.)	1944-46	Robert E. Hannegan (Mo.)	1944-47
Carroll Ræce (Tenn.)	1946-48	J. Howard McGrath (R. I.)	1947-49
Hugh D. Scott, Jr. (Pa.)	1948-49	William M. Boyle, Jr. (Mo.)	1949-51
		Frank E. McKinney (Ind.)	1951-

To find the year of the first session of a certain Congress, double the number of the Congress and add 1787. To find which

Congress was holding its first session in any odd year, subtract 1787 from the year and divide by 2.

The Executive Departments

Adapted from Congressional Directory and U. S. Government Organization Manual.

STATE. The Secretary of State has the principal responsibility, under the President, for the determination of the policy of the government in relation to international problems. He is charged with the conduct of negotiations pertaining to the protection of American rights and interests throughout the world, and the promotion of beneficial intercourse between the United States and other countries. He also performs certain domestic duties, such as having custody of the seal of the United States and publishing the laws enacted by Congress.

A Department of Foreign Affairs was established in 1781 and was reconstituted July 27, 1789, following adoption of the Constitution. The name was changed Sept. 15, 1789, to the Department of State.

TREASURY. The Secretary of the Treasury is charged by law with the management of the national finances. He superintends the collection of the revenue; grants warrants for money drawn from the Treasury in pursuance of appropriations made by law, and for the payment of moneys into the Treasury; directs the forms of keeping and rendering public accounts; prepares plans for the improvement of the revenue and for the support of the public credit; and submits a report annually to Congress on the condition of the public finances, and the results of activities under his supervision, which include, among others, the coinage and printing of money, and the administration of the Coast Guard, Narcotics and Secret Services.

The Department of the Treasury was created Sept. 2, 1789.

DEFENSE. The Secretary of Defense is responsible for supporting and defending the Constitution against all enemies, either foreign or domestic, and maintaining, by timely and effective military action, the security of the United States and its possessions and areas vital to its interest. He is charged with advancing the national policies and interests of the United States, and with safeguarding internal security as directed by higher authority. For these purposes, he may conduct integrated military operations on the land, on the sea, and in the air.

On July 26, 1947, the National Military Establishment was created by the National Security Act of 1947. The name was changed Aug. 10, 1949, to the Department of Defense. Subordinate to the Secretary of Defense are the Secretaries of the Army, of the Navy, and of the Air Force. These three Secretaries have neither Cabinet rank nor direct access to the President.

JUSTICE. The Attorney General is the chief law officer of the Federal Government. He represents the United States in legal matters generally and gives advice and opinions when requested by the President or by the heads of the executive departments. He appears in the Supreme Court in cases of exceptional importance, exercises general superintendence over United States district attorneys and marshals in the various judicial districts, and provides special counsel for the United States when the character of the interests involved requires such action. The Federal Bureau of Investigation and the Bureau of Prisons are under his direction.

The office of Attorney General was created Sept. 24, 1789. Although he was one of the original Cabinet members, he was not head of a department until June 22, 1870, when the Department of Justice was created.

POST OFFICE. The Postmaster General is executive head of the Postal Service. Subject to approval of the President, he makes postal treaties with foreign governments.

The office of Postmaster General and a temporary post office system were created Sept. 22, 1789. The first detailed provisions for a department were made Feb. 20, 1792, and later legislation developed the Postal System. The Postmaster General did not become a Cabinet member until 1829, and the department did not receive executive status until June 8, 1872.

INTERIOR. The Secretary of the Interior has the primary task of developing and conserving the natural resources of the United States and its territories for this and future generations. He is charged with the supervision of public business relating to such offices as the General Land Office, Bureau of Reclamation, Geological Survey, Office of Indian Affairs, National Park Service, Bureau of Mines, Division of Territories and Island Possessions, etc.

The Department of the Interior was created Mar. 3, 1849.

AGRICULTURE. The Secretary of Agriculture is charged with acquiring and diffusing among the people of the United States useful information on subjects connected with agriculture in the most general and comprehensive sense of the term. For that purpose he conducts a comprehensive research and educational program. He is also required to administer many other Federal laws which relate to marketing and distribution of agricultural products; the regulation of interstate commerce in food, fiber and related products; the protection

and management of the national forests, farm credit, agricultural adjustment, conservation and land use, farm tenancy, and rural rehabilitation and electrification.

The Department of Agriculture was created May 15, 1862, and administered by a Commissioner of Agriculture until Feb. 9, 1889, when it was made an executive department and the office of Secretary was created.

COMMERCE. The Secretary of Commerce directs such activities as population, agriculture and other censuses; collection, analysis and dissemination of commercial statistics; promotion of foreign and domestic commerce; coastal and geodetic surveys; establishment of commodity weights, measures, and standards; supervision of the issuance of patents and the registration of trade-marks; maintenance of aids to air navigation; development of inland waterway transportation.

On Mar. 4, 1913, all labor activities were transferred out of the Department of Commerce and Labor, and it was renamed the Department of Commerce.

Earlier Departments

WAR. The War Department was created Aug. 7, 1789, to succeed a similar department established before the adoption of the Constitution. Its activities were placed under the Department of Defense on July 26, 1947.

NAVY. On April 7, 1789, the conduct of naval affairs was placed under the War De-

LABOR. The Secretary of Labor is charged with the duty of fostering, promoting and developing the welfare of the wage earners of the United States, improving their working conditions, and advancing their opportunities for profitable employment. He has the power to act as mediator and to appoint commissioners of conciliation in labor disputes whenever in his judgment the interests of industrial peace may require it to be done. He directs the collection and collation of statistics concerning conditions of labor; the promulgation and enforcement of certain maximum hour, minimum wage, child labor, safety and health stipulations in connection with Government supply contracts; the investigation of matters pertaining to children.

A Bureau of Labor was created in 1884 under the Department of the Interior, and it later became an independent department without executive rank. It was returned to bureau status in the Department of Commerce and Labor, but on Mar. 4, 1913, it became an independent executive department under its present name.

partment, but on April 30, 1798, the Department of the Navy was created. Its activities were placed under the Department of Defense on July 26, 1947.

COMMERCE AND LABOR. The Department of Commerce and Labor was created Feb. 14, 1903, and divided Mar. 4, 1913, into two separate departments.

Presidential Succession

Under the Constitution, the Vice President is next in line for the Presidency; and, according to the Presidential Succession Act of 1886, the Vice President was to be followed by the Secretary of State, Secretary of the Treasury, Secretary of War, Attorney General, Postmaster General, Secretary of the Navy, and Secretary of the Interior in that order, provided they were constitutionally eligible. The Secretaries of Agriculture, Commerce and Labor were not included since their posts had not yet been created.

On July 18, 1947, President Truman

signed a bill making the Speaker of the House next in line after the Vice President, to be followed by the Senate President pro tempore provided both are constitutionally eligible. They are followed by the Cabinet members in the same order as provided by the Act of 1886, with the Secretaries of Agriculture, Commerce and Labor added in that order after the Secretary of the Interior. Under the National Security Act of 1947, signed July 26, 1947, the new Secretary of Defense, replacing the Secretaries of War and the Navy, is third in the succession line in the Cabinet.

Presidents and Congresses Coincident With Terms

President	Congresses	President	Congresses	President	Congresses	President	Congresses
Washington.....	1-4	W. H. Harrison.....	27	Johnson.....	39-40	T. Roosevelt.....	57-60
Adams.....	5-6	Tyler.....	27-28	Grant.....	41-44	Taft.....	61-62
Jefferson.....	7-10	Polk.....	29-30	Hayes.....	45-46	Wilson.....	63-66
Madison.....	11-14	Taylor.....	31	Garfield.....	47	Harding.....	67
Monroe.....	15-18	Fillmore.....	31-32	Arthur.....	47-48	Coolidge.....	68-70
J. Q. Adams.....	19-20	Pierce.....	33-34	Cleveland.....	49-50, 53-54	Hoover.....	71-72
Jackson.....	21-24	Buchanan.....	35-36	B. Harrison.....	51-52	F. D. Roosevelt.....	73-79
Van Buren.....	25-26	Lincoln.....	37-39	McKinley.....	55-57	Truman.....	79-82

U. S. Cabinet Members with Dates of Appointment

Although the Constitution made no provision for a President's advisory group, the heads of the three executive departments (State, Treasury and War) and the Attorney General were organized by Washington into such a group; and by about 1798, the name "Cabinet" was applied to it. With the exception of the Attorney General up to 1870 and the Postmaster General from 1829-72, Cabinet members have been heads of executive departments, although other government officials may be called to sit in whenever necessary.

A Cabinet member is appointed by the President, subject to the confirmation of the Senate; and as his term is not fixed, he may be replaced at any time by the

President. At a change in Administration, it is customary for him to tender his resignation, but he remains in office until a successor is appointed.

The table of Cabinet members lists only those members who actually served after being duly commissioned. It does not include ad-interim appointments or cases where the appointee declined the office after appointment.

The dates shown are those of appointment. "Contd" indicates that the term continued from the previous Administration for a substantial amount of time. Those cases where the term continued for only a few days, until a new appointment could be made, are not indicated.

WASHINGTON

Secretary of State
Thomas Jefferson..... 1789
Edmund Randolph..... 1794
Timothy Pickering..... 1795

Secretary of the Treasury
Alexander Hamilton..... 1789
Oliver Wolcott, Jr..... 1795

Secretary of War
Henry Knox..... 1789
Timothy Pickering..... 1795
James McHenry..... 1796

Attorney General
Edmund Randolph..... 1789
William Bradford..... 1794
Charles Lee..... 1795

J. ADAMS

Secretary of State
Timothy Pickering..... Contd
John Marshall..... 1800

Secretary of the Treasury
Oliver Wolcott, Jr..... Contd
Samuel Dexter..... 1801

Secretary of War
James McHenry..... Contd
Samuel Dexter..... 1800

Attorney General
Charles Lee..... Contd

Secretary of the Navy
Benjamin Stoddert... 1798

JEFFERSON

Secretary of State
James Madison..... 1801

Secretary of the Treasury
Samuel Dexter..... Contd
Albert Gallatin..... 1801

Secretary of War
Henry Dearborn..... 1801

Attorney General

Levi Lincoln..... 1801
Robert Smith..... 1805
John Breckinridge..... 1805
Caesar A. Rodney..... 1807

Secretary of the Navy

Benjamin Stoddert... Contd
Robert Smith..... 1801

MADISON

Secretary of State

Robert Smith..... 1809
James Monroe..... 1811

Secretary of the Treasury

Albert Gallatin..... Contd
George W. Campbell... 1814
Alexander J. Dallas... 1814
William H. Crawford... 1816

Secretary of War

William Eustis..... 1809
John Armstrong..... 1813
James Monroe..... 1814
William H. Crawford... 1815

Attorney General

Caesar A. Rodney... Contd
William Pinckney..... 1811
Richard Rush..... 1814

Secretary of the Navy

Paul Hamilton..... 1809
William Jones..... 1813
B. W. Crowninshield... 1814

MONROE

Secretary of State

John Quincy Adams... 1817

Secretary of the Treasury

William H. Crawford... Contd

Secretary of War

John C. Calhoun..... 1817

Attorney General

Richard Rush..... Contd
William Wirt..... 1817

Secretary of the Navy

B. W. Crowninshield... Contd
Smith Thompson..... 1818
Samuel L. Southard... 1823

J. Q. ADAMS

Secretary of State

Henry Clay..... 1825

Secretary of the Treasury

Richard Rush..... 1825

Secretary of War

James Barbour..... 1825
Peter B. Porter..... 1828

Attorney General

William Wirt..... Contd

Secretary of the Navy

Samuel L. Southard... Contd

JACKSON

Secretary of State

Martin Van Buren.... 1829
Edward Livingston.... 1831
Louis McLane..... 1833
John Forsyth..... 1834

Secretary of the Treasury

Samuel D. Ingham.... 1829
Louis McLane..... 1831
William J. Duane..... 1833
Roger B. Taney..... 1833
Levi Woodbury..... 1834

Secretary of War

John H. Eaton..... 1829
Lewis Cass..... 1831

Attorney General

John M. Berrien..... 1829
Roger B. Taney..... 1831
Benjamin F. Butler... 1833

Postmaster General¹

William T. Barry..... 1829
Amos Kendall..... 1835

Secretary of the Navy

John Branch..... 1829
Levi Woodbury..... 1831
Mahlon Dickerson.... 1834

VAN BUREN

Secretary of State

John Forsyth..... Contd

Secretary of the Treasury

Levi Woodbury..... Contd

Secretary of War

Joel R. Poinsett..... 1837

Attorney General

Benjamin F. Butler... Contd
Felix Grundy..... 1838
Henry D. Gilpin..... 1840

Postmaster General

Amos Kendall..... Contd
John M. Niles..... 1840

Secretary of the Navy

Mahlon Dickerson... Contd
James K. Paulding... 1838

W. HARRISON

Secretary of State

Daniel Webster..... 1841

Secretary of the Treasury

Thomas Ewing..... 1841

Secretary of War

John Bell..... 1841

Attorney General

John J. Crittenden... 1841

Postmaster General

Francis Granger..... 1841

Secretary of the Navy

George E. Badger..... 1841

TYLER

Secretary of State

Daniel Webster..... Contd
Abel P. Upshur..... 1843
John C. Calhoun..... 1844

Secretary of the Treasury

Thomas Ewing..... Contd
Walter Forward..... 1841
John C. Spencer..... 1843
George M. Bibb..... 1844

Secretary of War

John Bell..... Contd
John C. Spencer..... 1841
James M. Porter..... 1843
William Wilkins..... 1844

Attorney General

John J. Crittenden..... Contd
Hugh S. Legare..... 1841
John Nelson..... 1843

Postmaster General

Francis Granger..... Contd
Charles A. Wickliffe..... 1841

Secretary of the Navy

George E. Badger..... Contd
Abel P. Upshur..... 1841
David Henshaw..... 1843
Thomas W. Gilmer..... 1844
John Y. Mason..... 1844

POLE

Secretary of State

James Buchanan..... 1845

Secretary of the Treasury

Robert J. Walker..... 1845

Secretary of War

William L. Marcy..... 1845

Attorney General

John Y. Mason..... 1845
Nathan Clifford..... 1846
Isaac Toucey..... 1848

Postmaster General

Cave Johnson..... 1845

Secretary of the Navy

George Bancroft..... 1845
John Y. Mason..... 1846

TAYLOR

Secretary of State

John M. Clayton..... 1849

Secretary of the Treasury

William M. Meredith..... 1849

Secretary of War

George W. Crawford..... 1849

Attorney General

Reverdy Johnson..... 1849

Postmaster General

Jacob Collamer..... 1849

Secretary of the Navy

William B. Preston..... 1849

Secretary of the Interior

Thomas Ewing..... 1849

FILLMORE

Secretary of State

Daniel Webster..... 1850
Edward Everett..... 1852

Secretary of the Treasury

Thomas Corwin..... 1850

Secretary of War

Charles M. Conrad..... 1850

Attorney General

John J. Crittenden..... 1850

Postmaster General

Nathan K. Hall..... 1850
Samuel D. Hubbard..... 1852

Secretary of the Navy

William A. Graham..... 1850
John P. Kennedy..... 1852

Secretary of the Interior

Thos. M. T. McKennon..... 1850
Alex. H. H. Stuart..... 1850

PIERCE

Secretary of State

William L. Marcy..... 1853

Secretary of the Treasury

James Guthrie..... 1853

Secretary of War

Jefferson Davis..... 1853

Attorney General

Caleb Cushing..... 1853

Postmaster General

James Campbell..... 1853

Secretary of the Navy

James C. Dobbin..... 1853

Secretary of the Interior

Robert McClelland..... 1853

BUCHANAN

Secretary of State

Lewis Cass..... 1857
Jeremiah S. Black..... 1860

Secretary of the Treasury

Howell Cobb..... 1857
Philip F. Thomas..... 1860
John A. Dix..... 1861

Secretary of War

John B. Floyd..... 1857
Joseph Holt..... 1861

Attorney General

Jeremiah S. Black..... 1857
Edwin M. Stanton..... 1860

Postmaster General

Aaron V. Brown..... 1857
Joseph Holt..... 1859
Horatio King..... 1861

Secretary of the Navy

Isaac Toucey..... 1857

Secretary of the Interior

Jacob Thompson..... 1857

LINCOLN

Secretary of State

William H. Seward..... 1861

Secretary of the Treasury

Salmon P. Chase..... 1861
William P. Fessenden..... 1864
Hugh McCulloch..... 1865

Secretary of War

Simon Cameron..... 1861
Edwin M. Stanton..... 1862

Attorney General

Edward Bates..... 1861
James Speed..... 1864

Postmaster General

Montgomery Blair..... 1861
William Dennison..... 1864

Secretary of the Navy

Gideon Welles..... 1861

Secretary of the Interior

Caleb B. Smith..... 1861
John P. Usher..... 1863

JOHNSON

Secretary of State

William H. Seward..... Contd

Secretary of the Treasury

Hugh McCulloch..... Contd

Secretary of War

Edwin M. Stanton..... Contd
John M. Schofield..... 1868

Attorney General

James Speed..... Contd
Henry Stanbery..... 1866
William M. Evarts..... 1868

Postmaster General

William Dennison..... Contd
Alexander W. Randall..... 1866

Secretary of the Navy

Gideon Welles..... Contd

Secretary of the Interior

John P. Usher..... Contd
James Harlan..... 1865
Orville H. Browning..... 1866

GRANT

Secretary of State

Elihu B. Washburne..... 1869
Hamilton Fish..... 1869

Secretary of the Treasury

George S. Boutwell..... 1869
William A. Richardson..... 1873
Benjamin H. Bristow..... 1874
Lot M. Morrill..... 1876

Secretary of War

John A. Rawlins..... 1869
William T. Sherman..... 1869
William W. Belknap..... 1869
Alphonso Taft..... 1876
James D. Cameron..... 1876

Attorney General

Ebenezer R. Hoar..... 1869
Amos T. Akerman..... 1870
George H. Williams..... 1871
Edwards Pierrepont..... 1875
Alphonso Taft..... 1876

Postmaster General

John A. J. Creswell..... 1869
James W. Marshall..... 1874
Marshall Jewell..... 1874
James N. Tyner..... 1876

Secretary of the Navy

Adolph E. Borie..... 1869
George M. Robeson..... 1869

Secretary of the Interior

Jacob D. Cox..... 1869
Columbo Delano..... 1870
Zachariah Chandler..... 1875

HAYES

Secretary of State

William M. Evarts..... 1877

Secretary of the Treasury

John Sherman..... 1877

Secretary of War

George W. McCrary..... 1877
Alexander Ramsey..... 1879

Attorney General

Charles Devens..... 1877

Postmaster General

David M. Key..... 1877
Horace Maynard..... 1880

Secretary of the Navy

Richard W. Thompson..... 1877
Nathan Goff, Jr..... 1881

Secretary of the Interior

Carl Schurz..... 1877

GARFIELD

Secretary of State

James G. Blaine..... 1881

Secretary of the Treasury

William Windom..... 1881

Secretary of War

Robert T. Lincoln..... 1881

Attorney General

Wayne MacVeagh..... 1881

Postmaster General

Thomas L. James..... 1881

Secretary of the Navy

William H. Hunt..... 1881

Secretary of the Interior

Samuel J. Kirkwood..... 1881

ARTHUR

Secretary of State

James G. Blaine..... Contd
F. T. Frelinghuysen.... 1881

Secretary of the Treasury

William Windom..... Contd
Charles J. Folger..... 1881
Walter G. Gresham.... 1884
Hugh McCulloch..... 1884

Secretary of War

Robert T. Lincoln..... Contd

Attorney General

Wayne MacVeagh..... Contd
Benjamin H. Brewster. 1881

Postmaster General

Thomas L. James..... Contd
Timothy O. Howe..... 1881
Walter G. Gresham.... 1883
Frank Hatton..... 1884

Secretary of the Navy

William H. Hunt..... Contd
William E. Chandler.... 1882

Secretary of the Interior

Samuel J. Kirkwood... Contd
Henry M. Teller..... 1882

CLEVELAND

Secretary of State

Thomas F. Bayard..... 1885

Secretary of the Treasury

Daniel Manning..... 1885
Charles S. Fairchild... 1887

Secretary of War

William C. Endicott.... 1885

Attorney General

Augustus H. Garland... 1885

Postmaster General

William F. Vilas..... 1885
Don M. Dickinson..... 1888

Secretary of the Navy

William C. Whitney.... 1885

Secretary of the Interior

Lucius Q. C. Lamar.... 1885
William F. Vilas..... 1888

Secretary of Agriculture

Norman J. Colman..... 1889

HARRISON

Secretary of State

James G. Blaine..... 1889
John W. Foster..... 1892

Secretary of the Treasury

William Windom..... 1889
Charles Foster..... 1891

Secretary of War

Redfield Proctor..... 1889
Stephen B. Elkins..... 1891

Attorney General

William H. H. Miller.... 1889

Postmaster General

John Wanamaker..... 1889

Secretary of the Navy

Benjamin F. Tracy..... 1889

Secretary of the Interior

John W. Noble..... 1889

Secretary of Agriculture

Jeremiah M. Rusk..... 1889

CLEVELAND

Secretary of State

Walter Q. Gresham.... 1883
Richard Olney..... 1895

Secretary of the Treasury

John G. Carlisle..... 1893

Secretary of War

Daniel S. Lamont..... 1893

Attorney General

Richard Olney..... 1893
Judson Harmon..... 1895

Postmaster General

Wilson S. Bissell..... 1893
William L. Wilson..... 1895

Secretary of the Navy

Hilary A. Herbert..... 1893

Secretary of the Interior

Hoke Smith..... 1893
David R. Francis..... 1896

Secretary of Agriculture

Julius Sterling Morton. 1893

MCKINLEY

Secretary of State

John Sherman..... 1897
William R. Day..... 1898
John Hay..... 1898

Secretary of the Treasury

Lyman J. Gage..... 1897

Secretary of War

Russell A. Alger..... 1897
Elihu Root..... 1899

Attorney General

Joseph McKenna..... 1897
John W. Griggs..... 1898
Philander C. Knox..... 1901

Postmaster General

James A. Gary..... 1897
Charles E. Smith..... 1898

Secretary of the Navy

John D. Long..... 1897

Secretary of the Interior

Cornelius N. Bliss.... 1897
Ethan A. Hitchcock.... 1898

Secretary of Agriculture

James Wilson..... 1897

T. ROOSEVELT

Secretary of State

John Hay..... Contd
Elihu Root..... 1905
Robert Bacon..... 1909

Secretary of the Treasury

Lyman J. Gage..... Contd
Leslie M. Shaw..... 1902
George B. Cortelyou... 1907

Secretary of War

Elihu Root..... Contd
William H. Taft..... 1904
Luke E. Wright..... 1908

Attorney General

Philander C. Knox.... Contd
William H. Moody..... 1904
Charles J. Bonaparte... 1906

Postmaster General

Charles E. Smith..... Contd
Henry C. Payne..... 1902
Robert J. Wynne..... 1904
George B. Cortelyou... 1905
George von L. Meyer... 1907

Secretary of the Navy

John D. Long..... Contd
William H. Moody..... 1902
Paul Morton..... 1904
Charles J. Bonaparte... 1905
Victor H. Metcalf..... 1906
Truman H. Newberry... 1908

Secretary of the Interior

Ethan A. Hitchcock.... Contd
James R. Garfield..... 1907

Secretary of Agriculture

James Wilson..... Contd

Secretary of Commerce and Labor

George B. Cortelyou... 1903
Victor H. Metcalf..... 1904
Oscar S. Straus..... 1906

TAFT

Secretary of State

Philander C. Knox..... 1909

Secretary of the Treasury

Franklin MacVeagh.... 1909

Secretary of War

Jacob M. Dickinson.... 1909
Henry L. Stimson..... 1911

Attorney General

George W. Wickersham. 1909

Postmaster General

Frank H. Hitchcock.... 1909

Secretary of the Navy

George von L. Meyer... 1909

Secretary of the Interior

Richard A. Ballinger... 1909
Walter L. Fisher..... 1911

Secretary of Agriculture

James Wilson..... Contd

Secretary of Commerce and Labor

Charles Nagel..... 1909

WILSON

Secretary of State

William J. Bryan..... 1913
Robert Lansing..... 1915
Bainbridge Colby..... 1920

Secretary of the Treasury

William G. McAdoo.... 1913
Carter Glass..... 1918
David F. Houston..... 1920

Secretary of War

Lindley M. Garrison.... 1913
Newton D. Baker..... 1916

Attorney General

James C. McReynolds... 1913
Thomas W. Gregory.... 1914
A. Mitchell Palmer.... 1919

Postmaster General

Albert S. Burleson.... 1913

Secretary of the Navy

Josephus Daniels..... 1913

Secretary of the Interior

Franklin K. Lane..... 1913
John B. Payne..... 1920

Secretary of Agriculture

David F. Houston..... 1913
Edwin T. Meredith.... 1920

Secretary of Commerce

William C. Redfield... 1913
Joshua W. Alexander... 1919

Secretary of Labor

William B. Wilson..... 1913

HARDING

Secretary of State

Charles E. Hughes..... 1921

Secretary of the Treasury

Andrew W. Mellon.... 1921

Secretary of War

John W. Weeks..... 1921

Attorney General

Harry M. Daugherty... 1921

Postmaster General

Will H. Hays..... 1921
Hubert Work..... 1922
Harry S. New..... 1923

Secretary of the Navy

Edwin Denby..... 1921

Secretary of the Interior

Albert B. Fall..... 1921
Hubert Work..... 1923

Secretary of Agriculture

Henry C. Wallace..... 1921

Secretary of Commerce

Herbert Hoover..... 1921

Secretary of Labor

James J. Davis..... 1921

COOLIDGE		HOOVER		Secretary of War		Secretary of the Treasury	
Secretary of State		Secretary of State		George H. Dern..... 1933		Henry Morgenthau, Jr. Contd	
Charles E. Hughes..... Contd		Frank B. Kellogg..... Contd		Harry H. Woodring..... 1936		Fred M. Vinson..... 1945	
Frank B. Kellogg..... 1925		Henry L. Stimson..... 1929		Henry L. Stimson..... 1940		John W. Snyder..... 1946	
Secretary of the Treasury		Secretary of the Treasury		Attorney General		Secretary of Defense	
Andrew W. Mellon..... Contd		Andrew W. Mellon..... Contd		Homer S. Cummings... 1933		James Forrestal..... 1947	
		Ogden L. Mills..... 1932		Frank Murphy..... 1939		Louis A. Johnson..... 1949	
Secretary of War		Secretary of War		Robert H. Jackson..... 1940		George C. Marshall..... 1950	
John W. Weeks..... Contd		James W. Good..... 1929		Francis Biddle..... 1941		Robert A. Lovett..... 1951	
Dwight F. Davis..... 1925		Patrick J. Hurley..... 1929		Postmaster General		Attorney General	
Attorney General		Attorney General		James A. Farley..... 1933		Francis Biddle..... Contd	
Harry M. Daugherty... Contd		William D. Mitchell... 1929		Frank C. Walker..... 1940		Tom C. Clark..... 1945	
Harlan F. Stone..... 1924		Postmaster General		Secretary of the Navy		J. Howard McGrath... 1949	
John G. Sargent..... 1925		Walter F. Brown..... 1929		Claude A. Swanson... 1933		James P. McGranery... 1952	
Postmaster General		Secretary of the Navy		Charles Edison..... 1940		Postmaster General	
Harry S. New..... Contd		Charles F. Adams..... 1929		Frank Knox..... 1940		Frank C. Walker..... Contd	
Secretary of the Navy		Secretary of the Interior		James Forrestal..... 1944		Robert E. Hannegan... 1945	
Edwin Denby..... Contd		Ray Lyman Wilbur.... 1929		Secretary of the Interior		Jesse M. Donaldson... 1947	
Curtis D. Wilbur..... 1924		Secretary of Agriculture		Harold L. Ickes..... 1933		Secretary of the Interior	
Secretary of the Interior		Secretary of Commerce		Secretary of Agriculture		Harold L. Ickes..... Contd	
Hubert Work..... Contd		Robert P. Lamont..... 1929		Henry A. Wallace..... 1933		Julius C. Krug..... 1946	
Roy O. West..... 1928		Roy D. Chaplin..... 1932		Claude R. Wickard.... 1940		Oscar L. Chapman..... 1949	
Secretary of Agriculture		Secretary of Labor		Secretary of Commerce		Secretary of Agriculture	
Henry C. Wallace..... Contd		James J. Davis..... Contd		Daniel C. Roper..... 1933		Claude R. Wickard.... Contd	
Howard M. Gore..... 1924		William N. Doak..... 1930		Harry L. Hopkins..... 1938		Clinton P. Anderson... 1945	
William M. Jardine... 1925		F. ROOSEVELT		Jesse H. Jones..... 1940		Charles F. Brannan... 1948	
Secretary of Commerce		Secretary of State		Henry A. Wallace..... 1945		Secretary of Commerce	
Herbert Hoover..... Contd		Cordell Hull..... 1933		Secretary of Labor		Henry A. Wallace..... Contd	
William F. Whiting.... 1928		E. R. Stettinius, Jr.... 1944		Frances Perkins..... 1933		W. Averell Harriman... 1946	
Secretary of Labor		Secretary of the Treasury		TRUMAN		Charles Sawyer..... 1948	
James J. Davis..... Contd		William H. Woodin... 1933		Secretary of State		Secretary of War ¹	
		Henry Morgenthau, Jr. 1934		E. R. Stettinius, Jr.... Contd		Henry L. Stimson..... Contd	

¹ The Postmaster General did not become a Cabinet member until 1829. Earlier Postmasters General were: Samuel Osgood (1789), Timothy Pickering (1791), Joseph Habersham (1795), Gideon Granger (1801), Return J. Meigs, Jr. (1814) and John McLean (1823). ² On July 26, 1947, the Departments of War and of the Navy were incorporated into the Department of Defense.

The Confederate States of America, 1861-65

President—Jefferson Davis; born, Christian (now Todd) Co., Ky., June 3, 1808; died, Dec. 6, 1889. Vice President—Alexander H. Stephens.

CABINET*

Secretary of State		Secretary of Navy	
Robert Toombs..... 1861		Stephen R. Mallory..... 1861	
Robert M. T. Hunter..... 1861		Postmaster General	
Judah P. Benjamin..... 1862		Henry T. Ellett..... 1861	
Secretary of Treasury		John H. Reagan..... 1861	
Christopher Memminger..... 1861		Attorney General	
George A. Trenholm..... 1864		Judah P. Benjamin..... 1861	
Secretary of War		Thomas Bragg..... 1861	
Leroy P. Walker..... 1861		Thomas N. Watts..... 1862	
Judah P. Benjamin..... 1861		George Davis..... 1864	
George W. Randolph..... 1862			
James A. Seddon..... 1862			
John C. Breckinridge..... 1865			

* Dates are those of appointment.

Independent U. S. Government Agencies

Source: U. S. Government Organization Manual.

Atomic Energy Commission (AEC)

Established: By Atomic Energy Act of 1946, approved Aug. 1, 1946.

Members: 5.

Activities: Promoting federally conducted and private research and development; controlling dissemination of information; controlling production, ownership and use of fissionable and fusible materials.

Headquarters: 19th St. and Constitution Ave. NW, Washington, D.C.

Civil Aeronautics Board (CAB)

Established: Effective June 30, 1940.

Members: 5.

Activities: Regulating economic aspects of U. S. air carrier operation; prescribing safety standards; investigating and analyzing aircraft accidents; assisting in development of international air transportation.

Headquarters: Dept. of Commerce Bldg., Washington, D. C.

Economic Stabilization Agency (ESA)

Established: By Executive Order, Sept. 9, 1950.

Members: Headed by Administrator.

Activities: Planning and developing both long- and short-range price and wage stabilization policies; establishing price ceilings and stabilizing wages where necessary. Subdivisions include Salary Stabilization Board, which handles wage aspect of ESA, and Office of Price Stabilization (OPS), which is charged with preventing inflation and preserving value of currency through establishment of ceilings.

Headquarters: 811 Vermont Ave., NW, Washington, D. C.

Federal Communications Commission (FCC)

Established: By Communications Act of 1934.

Members: 7.

Activities: Regulating interstate and foreign communications by wire and radio, including standard FM, television and amateur radio; issuing, modifying or revoking radio and operators' licenses; classifying radio stations and prescribing their services; enforcing use of radio for safety purposes on U. S. ships.

Headquarters: Post Office Dept. Bldg., 12th St. and Pennsylvania Ave., NW, Washington, D. C.

Federal Deposit Insurance Corporation (FDIC)

Established: By Federal Reserve Act, approved June 16, 1933.

Members: 3.

Activities: Administering Corporation's funds to protect depositors in mem-

ber banks up to \$10,000; prescribing rules and regulations for member banks.

Headquarters: National Press Bldg., Washington, D. C.

Federal Power Commission (FPC)

Established: 1920. Present form, June 23, 1930.

Members: 5.

Activities: Granting of licenses to public and private agencies for development, utilization and transmission of power on federal streams; regulating rates and services; investigating power development possibilities in flood-control projects; regulating distribution, services and rates of interstate natural gas.

Headquarters: Hurley-Wright Bldg., 1800 Pennsylvania Ave., NW, Washington, D. C.

Federal Reserve Board (FRB)

Established: By Federal Reserve Act of Dec. 23, 1913.

Members: 7.

Activities: Supervising Federal Reserve banks; influencing credit conditions; regulating open-market operations; issuing Federal Reserve notes.

Headquarters: Twentieth St. and Constitution Ave., NW, Washington, D. C.

Federal Security Agency (FSA)

Established: By President's Reorganization Plan of Apr. 25, 1939.

Members: Administrator and staff.

Activities: Co-ordinating and supervising: Food and Drug Administration, Office of Education, Office of Vocational Rehabilitation, Public Health Service, St. Elizabeth's Hospital, Social Security Administration and Children's Bureau.

Headquarters: Fourth St. and Independence Ave., SW, Washington, D. C.

Federal Trade Commission (FTC)

Established: By Federal Trade Commission Act of Sept. 26, 1914.

Members: 5.

Activities: Preventing unfair competition; preventing deceptive practices and false advertising; preventing price discrimination; preventing monopolies.

Headquarters: Pennsylvania Ave. at Sixth St., NW, Washington, D. C.

Housing and Home Finance Agency

Established: By President's Reorganization Plan of 1947, effective July 27, 1947.

Members: Administrator and staff.

Activities: Providing a single agency responsible for the principal housing programs and functions of the Federal government; supervising and co-

ordinating the activities of: Federal National Mortgage Association, Federal Home Loan Bank, Federal Housing Administration (FHA), Public Housing Administration (PHA).

Headquarters: 1626 K St., NW, Washington, D. C.

Office of the Housing Expediter (OHE)

Established: By Executive Order, effective Jan. 26, 1946.

Members: Expediter and assistants.

Activities: Administering federal rent control; enforcing veterans' preference requirements in sale and renting of new housing; investigating violations.

Headquarters: Midway Hall, 24th St. and Oklahoma Ave., NE, Washington, D. C.

Interstate Commerce Commission (ICC)

Established: By Interstate Commerce Act of Feb. 4, 1887.

Members: 11.

Activities: Regulating railroads, motor carriers, water carriers and freight forwarders as to rates, through-routes, services and bills of lading. Also: authorizing mergers or consolidations; authorizing issue of securities by carriers.

Headquarters: 12th St. and Constitution Ave., NW, Washington, D. C.

National Labor Relations Board (NLRB)

Established: By National Labor Relations Act of July 5, 1935.

Members: 5.

Activities: Preventing unfair labor practices by employers or labor organizations and conducting secret ballots among employees to determine their choice of bargaining representatives.

Headquarters: Federal Security Bldg., South, Third and C Sts., SW, Washington, D. C.

National Mediation Board

Established: By Act of Congress, approved June 21, 1934, and amended April 10, 1936.

Members: Chairman and 2 members.

Activities: Mediating differences between railroads, express and Pullman companies and airlines engaged in interstate commerce or under mail contract and their employees growing out of attempts to make and maintain agreements establishing rates of pay, rules and working conditions of the employees. Mediating disputes between carriers and employees and determining representation disputes.

Headquarters: General Service Administration Bldg., 18th and F Sts., NW, Washington, D. C.

Reconstruction Finance Corporation (RFC)

Established: By Reconstruction Finance Corporation Act, approved Jan. 22, 1932.

Members: Administrator and staff.

Activities: Aiding in financing agriculture, commerce and industry; encouraging small business; helping maintain economic stability.

Headquarters: 811 Vermont Ave., NW, Washington, D. C.

Securities and Exchange Commission (SEC)

Established: By Securities Exchange Act of 1934, approved June 6, 1934.

Members: 5.

Activities: Registering and issuing regulations for securities exchanges; registering securities offered for public sale; penalizing violators of regulations, subject to appeal to U. S. Court of Appeals.

Headquarters: 425 Second St., NW, Washington, D. C.

Tennessee Valley Authority (TVA)

Established: By act of Congress, May 18, 1933.

Members: 3 Directors.

Activities: Providing navigable channel and flood control of Tennessee River and some of its larger tributaries; disposing of surplus electric power; improving, increasing and cheapening production of fertilizer.

Headquarters: Woodward Bldg., 15th and H Sts., NW, Washington, D. C.

U. S. Civil Service Commission

Established: By act of Congress, approved Jan. 16, 1883.

Members: 3.

Activities: Providing examinations to test fitness of applicants for positions in competitive service; providing personnel in response to requests from appointing officers; classifying positions; maintaining service records.

Headquarters: Eighth and F Sts., NW, Washington, D. C.

U. S. Tariff Commission

Established: By act of Congress, approved Sept. 8, 1916.

Members: 6.

Activities: Investigating customs laws, unfair competition, and foreign and domestic manufacturing costs; surveying domestic and foreign industries.

Headquarters: E St. between Seventh and Eighth Sts., NW, Washington, D. C.

Veterans' Administration (VA)

Established: By Executive Order of July 21, 1930.

Members: Administrator and staff.

Activities: Administering laws authorizing benefits for veterans and for their dependents or beneficiaries. Includes hospitalization, pensions, insurance, loans, education, etc.

Headquarters: Vermont Ave. between H and I Sts., NW, Washington, D. C.

SPEAKERS OF THE HOUSE OF REPRESENTATIVES

Source: Congressional Directory.

Name and state	Congress	Dates served	Name and state	Congress	Dates served
F. A. C. Muhlenburg (Pa.)	1	1789-1791	James L. Orr (S. C.)	35	1857-1859
Jonathan Trumbull (Conn.)	2	1791-1793	William Pennington (N. J.)	36	1859-1861
F. A. C. Muhlenburg (Pa.)	3	1793-1795	Galusha A. Grow (Pa.)	37	1861-1863
Jonathan Dayton (N. J.) ¹	4-5	1795-1799	Schuyler Colfax (Ind.)	38-40	1863-1869
Theodore Sedgwick (Mass.)	6	1799-1801	Theodore M. Pomeroy (N. Y.) ⁶	40	1869-1869
Nathaniel Macon (N. C.)	7-9	1801-1807	James G. Blaine (Maine)	41-43	1869-1875
Joseph B. Varnum (Mass.)	10-11	1807-1811	Michael C. Kerr (Ind.) ⁶	44	1875-1876
Henry Clay (Ky.) ²	12-13	1811-1814	Samuel J. Randall (Pa.)	44-46	1876-1881
Langdon Cheves (S. C.)	13	1814-1815	J. Warren Keifer (Ohio)	47	1881-1883
Henry Clay (Ky.) ³	14-16	1815-1820	John G. Carlisle (Ky.)	48-50	1883-1889
John W. Taylor (N. Y.)	16	1820-1821	Thomas B. Reed (Maine)	51	1889-1891
Philip P. Barbour (Va.)	17	1821-1823	Charles F. Crisp (Ga.)	52-53	1891-1895
Henry Clay (Ky.)	18	1823-1825	Thomas B. Reed (Maine)	54-55	1895-1899
John W. Taylor (N. Y.)	19	1825-1827	David B. Henderson (Iowa)	56-57	1899-1903
Andrew Stevenson (Va.) ⁴	20-23	1827-1834	Joseph G. Cannon (Ill.)	58-61	1903-1911
John Bell (Tenn.)	23	1834-1835	Champ Clark (Mo.)	62-65	1911-1919
James K. Polk (Tenn.)	24-25	1835-1839	Frederick H. Gillett (Mass.)	66-68	1919-1925
Robert M. T. Hunter (Va.)	26	1839-1841	Nicholas Longworth (Ohio)	69-71	1925-1931
John White (Ky.)	27	1841-1843	John N. Garner (Tex.)	72	1931-1933
John W. Jones (Va.)	28	1843-1845	Henry T. Rainey (Ill.)	73	1933-1935
John W. Davis (Ind.)	29	1845-1847	Joseph W. Byrnes (Tenn.) ⁷	74	1935-1936
Robert C. Winthrop (Mass.)	30	1847-1849	William B. Bankhead (Ala.) ⁸	74-76	1936-1940
Howell Cobb (Ga.)	31	1849-1851	Sam Rayburn (Tex.)	78-79	1940-1947
Linn Boyd (Ky.)	32-33	1851-1855	Joseph W. Martin, Jr. (Mass.)	80	1947-1949
Nathaniel P. Banks (Mass.)	34	1855-1857	Sam Rayburn (Tex.)	81	1949-

¹ George Dent (Md.) was elected Speaker pro tempore for Apr. 20 and May 23, 1798. ² Resigned during 2d session of 13th Congress. ³ Resigned between 1st and 2d sessions of 16th Congress. ⁴ Resigned during 1st session of 23d Congress. ⁵ Elected Speaker and served the day of adjournment. ⁶ Died between 1st and 2d sessions of 44th Congress. During 1st session, there were two Speakers pro tempore: Samuel S. Cox (N. Y.), appointed for Feb. 17, May 12 and June 19, 1876, and Milton Saylor (Ohio), appointed for June 4, 1876. ⁷ Died during 2d session of 74th Congress. ⁸ Died during 3d session of 76th Congress.

The White House

The White House, the official residence of the President, is located on Pennsylvania Avenue in Washington, D. C. The site covering about 16 acres was selected by President Washington and Pierre Charles L'Enfant, and the architect was James Hoban. The design of the mansion is said to have been suggested by the Duke of Leinster's Palace in Ireland. The cornerstone was laid Oct. 13, 1792, and the first residents were President and Mrs. John Adams in Nov., 1800. The building was fired by the British in 1814, and the sandstone exterior was painted white in 1815.

The rooms for public functions are on the first floor; on the second are the President's apartments. The most celebrated public room is the East Room, where formal receptions take place. Other public rooms are the Red Room, the Green Room, and the Blue Room. The State Dining Room is used for formal dinners.

The Executive Office, a three-story struc-

ture at the west end of the West Terrace, was added to the original building in 1902 to accommodate the President's office staff, and several additions have since been made. In 1942, a three-story building was erected on the East Terrace, and now serves as the White House main entrance. In 1948, a second-story balcony was added to the White House inside the Ionic pillars of the south portico.

The White House was closed Nov. 6, 1948, for social engagements and sightseers because of the deterioration of the building and the fear that it might collapse at any time. On Nov. 21, President Truman and his family moved into Blair House across the street.

Instead of being torn down, the walls were retained and strengthened, and the interior was rebuilt. There are now 77 rooms instead of the former 69.

The Trumans moved back into the White House on Mar. 27, 1952.

Justices of the United States Supreme Court

Name	State	Term	Years	Born	Died	Name	State	Term	Years	Born	Died
*John Jay.....	N. Y.	1789-1795	6	1745	1829	Stanley Matthews.....	Ohio.	1881-1889	8	1824	1889
John Rutledge.....	S. C.	1789-1791	2	1739	1800	Horace Gray.....	Mass.	1881-1902	21	1828	1902
William Cushing.....	Mass.	1789-1810	21	1732	1810	Samuel Blatchford.....	N. Y.	1882-1893	11	1820	1893
James Wilson.....	Pa.	1789-1798	9	1742	1798	Lucius Q. Lamar.....	Miss.	1888-1893	5	1825	1893
John Blair.....	Va.	1789-1796	7	1732	1800	*Melville W. Fuller.....	Ill.	1888-1910	22	1833	1910
James Iredell.....	N. C.	1790-1799	9	1751	1799	David J. Brewer.....	Kans.	1889-1910	21	1837	1910
Thomas Johnson.....	Md.	1792-1793	1½	1732	1819	Henry B. Brown.....	Mich.	1890-1906	16	1836	1913
William Paterson.....	N. J.	1793-1806	13	1745	1806	George Shiras, Jr.....	Pa.	1892-1903	11	1832	1924
*John Rutledge.....	S. C.	1795-1795	—	1739	1800	Howell E. Jackson.....	Tenn.	1893-1895	2	1832	1895
Samuel Chase.....	Md.	1796-1811	15	1741	1811	Edward D. White.....	La.	1894-1910	16	1845	1921
*Oliver Ellsworth.....	Conn.	1796-1800	4	1745	1807	Rufus W. Peckham.....	N. Y.	1895-1909	14	1838	1909
Bushrod Washington.....	Va.	1798-1829	31	1762	1829	Joseph McKenna.....	Calif.	1898-1925	27	1843	1926
Alfred Moore.....	N. C.	1800-1804	4	1755	1810	Oliver W. Holmes.....	Mass.	1902-1932	30	1841	1935
*John Marshall.....	Va.	1801-1835	34	1755	1835	William R. Day.....	Ohio.	1903-1922	19	1849	1923
William Johnson.....	S. C.	1804-1834	30	1771	1834	William H. Moody.....	Mass.	1906-1910	4	1853	1917
Brock Livingston.....	N. Y.	1806-1823	17	1757	1823	Horace H. Lurton.....	Tenn.	1909-1914	5	1844	1914
Thomas Todd.....	Ky.	1807-1826	19	1765	1826	*Edward D. White.....	La.	1910-1921	11	1845	1921
Joseph Story.....	Mass.	1811-1845	34	1779	1845	Charles E. Hughes.....	N. Y.	1910-1916	6	1862	1948
Gabriel Duval.....	Md.	1811-1835	23	1752	1844	Willis Van Devanter.....	Wyo.	1910-1937	26	1859	1941
Smith Thompson.....	N. Y.	1823-1843	20	1768	1843	Joseph R. Lamar.....	Ga.	1910-1916	6	1857	1916
Robert Trimble.....	Ky.	1826-1828	2	1777	1828	Mahlon Pitney.....	N. J.	1912-1923	11	1858	1924
John McLean.....	Ohio.	1829-1861	32	1785	1861	Jas. C. McReynolds.....	Tenn.	1914-1941	26	1862	1946
Henry Baldwin.....	Pa.	1830-1844	14	1780	1844	Louis D. Brandeis.....	Mass.	1916-1939	23	1856	1941
James M. Wayne.....	Ga.	1835-1867	32	1790	1867	John H. Clarke.....	Ohio.	1916-1922	6	1857	1945
*Roger B. Taney.....	Md.	1836-1864	28	1777	1864	*William H. Taft.....	Conn.	1921-1930	9	1857	1930
Philip P. Barbour.....	Va.	1836-1841	5	1783	1841	George Sutherland.....	Utah.	1922-1938	16	1862	1942
John Catron.....	Tenn.	1837-1865	28	1786	1865	Pierce Butler.....	Minn.	1922-1939	17	1866	1939
John McKinley.....	Ala.	1837-1852	15	1780	1852	Edward T. Sanford.....	Tenn.	1923-1930	7	1865	1930
Peter V. Daniel.....	Va.	1841-1860	19	1784	1860	Harlan F. Stone.....	N. Y.	1925-1941	16	1872	1946
Samuel Nelson.....	N. Y.	1845-1872	27	1792	1873	*Charles E. Hughes.....	N. Y.	1930-1941	11	1862	1948
Levi Woodbury.....	N. H.	1845-1851	6	1789	1851	Owen J. Roberts.....	Pa.	1930-1945	15	1875	
Robert C. Grier.....	Pa.	1846-1870	23	1794	1870	Benjamin N. Cardozo.....	N. Y.	1932-1938	6	1870	1938
Benjamin R. Curtis.....	Mass.	1851-1857	6	1809	1874	Hugo L. Black.....	Ala.	1937		1886	
John A. Campbell.....	Ala.	1853-1861	8	1811	1889	Stanley F. Reed.....	Ky.	1938		1884	
Nathan Clifford.....	Maine	1858-1881	23	1803	1881	Felix Frankfurter.....	Mass.	1939		1882	
Noah H. Swayne.....	Ohio.	1862-1881	18	1804	1884	William O. Douglas.....	Conn.	1939		1898	
Samuel F. Miller.....	Iowa.	1862-1890	28	1816	1890	Frank Murphy.....	Mich.	1940-1949	9	1890	1949
David Davis.....	Ill.	1862-1877	15	1815	1886	*Harlan F. Stone.....	N. Y.	1941-1946	5	1872	1946
Stephen J. Field.....	Calif.	1863-1897	34	1816	1899	James F. Byrnes.....	S. C.	1941-1942	1	1879	
*Salmon P. Chase.....	Ohio.	1864-1873	9	1808	1873	Robert H. Jackson.....	N. Y.	1941		1892	
William Strong.....	Pa.	1870-1880	10	1808	1895	Wiley B. Rutledge.....	Iowa.	1943-1949	6	1894	1949
Joseph P. Bradley.....	N. J.	1870-1892	22	1813	1892	Harold H. Burton.....	Ohio.	1945		1888	
Ward Hunt.....	N. Y.	1872-1882	10	1810	1886	*Fred M. Vinson.....	Ky.	1946		1890	
*Morrison R. Waite.....	Ohio.	1874-1888	14	1816	1888	Tom C. Clark.....	Tex.	1949		1899	
John M. Harlan.....	Ky.	1877-1911	34	1833	1911	Sherman Minton.....	Ind.	1949		1890	
William B. Woods.....	Ga.	1880-1887	7	1824	1887						

* Chief Justices. † Appointed and served one term, but not confirmed by Senate.

Federal Impeachments

Source: Congressional Directory.

The Senate has sat as a court of impeachment in the following cases:

WILLIAM BLOUNT, Senator from Tennessee; charges dismissed for want of jurisdiction, January 14, 1799.

JOHN PICKERING, Judge of the U. S. District Court for New Hampshire; removed from office March 12, 1804.

SAMUEL CHASE, Associate Justice of the Supreme Court; acquitted March 1, 1805.

JAMES H. PECK, Judge of the U. S. District Court for Missouri; acquitted Jan. 31, 1831.

WEST H. HUMPHREYS, Judge of the United States District Court for the middle, eastern, and western districts of Tennessee; removed from office June 26, 1862.

ANDREW JOHNSON, President of the United States; acquitted May 26, 1868.

WILLIAM W. BELKNAP, Secretary of War; acquitted Aug. 1, 1876.

CHARLES SWAYNE, Judge of the United States District Court for the northern district of Florida; acquitted Feb. 27, 1905.

ROBERT W. ARCHBOLD, Associate Judge, United States Commerce Court; removed from office January 13, 1913.

GEORGE W. ENGLISH, Judge of the U. S. District Court for the eastern district of Illinois; resigned office November 4, 1926; impeachment proceedings dismissed.

HAROLD LOUDERBACK, Judge of the U. S. District Court for the northern district of California; acquitted May 24, 1933.

HALSTED L. RITTER, Judge of the U. S. District Court for the southern district of Florida; removed April 17, 1936.

Principal Bills and Treaties Since 1900

PARTY ABBREVIATIONS

Dem.—Democratic
Rep.—RepublicanA.L.—American Labor
F.L.—Farmer-LaborInd.—Independent
Prog.—ProgressiveProh.—Prohibition
Soc.—Socialist

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Hay-Pauncefote Treaty. England agreed the U. S. can build and control an isthmian canal open to all nations on equal terms (ratified Dec. 16, 1901).		No vote required		72	6	Nov. 18, 1901
Newlands Act. Authorized irrigation projects in 16 western states.		146	55	No roll-call vote		June 17, 1902
Spooner Bill. Authorized purchase of New Panama Canal Company's rights.		252	8	67	6	June 28, 1902
Elkins Act. Forbade railroads from deviating from published rates; punished givers and receivers of rebates.		241	6	No record vote		Feb. 19, 1903
Hay-Bunau-Varilla Treaty. Granted the U. S. a ten-mile strip in Panama in perpetuity for \$10,000,000 in gold and an annuity of \$250,000.	Dem. Rep.	No vote required		9 41	15 1	Mar. 19, 1903
Hepburn Rate Bill. Gave the ICC control over express companies and pipe lines; allowed them to reduce rates upon complaint of shipper; outlawed midnight rates; forbade free passes; required uniform book-keeping system.		216	4	71	3	June 29, 1906
Pure Food and Drug Act. Made shipments in interstate commerce of adulterated foods and drugs illegal.		240	17	63	4	June 30, 1906
Payne-Aldrich Tariff. Protective, averaging 36.38 per cent; lowered rates on coal, lumber, etc.; free list included wood pulp, oil, etc.		195	183	47	31	Aug. 5, 1909
Immigration Act. Barred paupers, anarchists, criminals, and diseased persons.						Mar. 26, 1910
Mann-Elkins Act. Gave the ICC jurisdiction over telephone and telegraph companies; right to alter railroad rates on their own initiative.		200	126	50	12	June 18, 1910
Admission of New Mexico.		No roll-call vote		53	8	Jan. 6, 1912
Admission of Arizona.		No roll-call vote		53	8	Feb. 14, 1912
16th Amendment. Legalized the income tax.		317	14	77	0	Feb. 25, 1913
Webb-Kenyon Interstate Liquor Shipment Act. Forbade transportation of liquor from wet to dry states.		240	65	No roll-call vote		Vetoed, Feb. 23, 1913
		244	95	62	21	Mar. 1, 1913 (Reconsideration vote)
17th Amendment. Provided for popular election of Senators.		237	39	64	24	May 31, 1913
Underwood-Simmons Tariff. Averaged 26.67 per cent with 958 reductions, 86 increases and 307 unchanged items.		254	103	36	17	Oct. 3, 1913
Glass-Owen Bill. Established a Federal Reserve system.		298	60	43	25	Dec. 23, 1913
Federal Trade Commission. Established to enforce anti-trust laws.		No roll-call vote		53	16	Sept. 26, 1914
Clayton Antitrust Act. Prohibited monopolistic price discrimination, restrictive sales or leases, intercorporate stock holding, interlocking directorates of competing companies capitalized at \$1,000,000 or more. Exempted labor from antitrust laws and declared peaceful picketing legal.		244	54	35	24	Oct. 15, 1914
Federal Farm Loan Act. Created system of land banks to lend money to farmers on their land and permanent improvements.		No roll-call vote		58	5	July 17, 1916
Keating-Owen Act. Forbade shipping in interstate commerce of goods produced by children. (Declared unconstitutional in 1918.)		337	46	52	12	Sept. 1, 1916

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Adamson Act. Limited working hours of railroad employees to 8 per day on interstate railroads.		259	36	43	28	Sept. 3-5, 1916*
Burnett Immigration Bill. Required literacy test for immigrants.		308	87	64	7	Vetoed, Jan. 29, 1917
		285	106	62	19	Feb. 5, 1917
				(Reconsideration vote)		
Armed Neutrality Act. Allowed American vessels to be armed in war zones.				Filibustered		Defeated, Mar. 4, 1917
Declaration of War. Against Germany (World War I).		373	50	82	6	Apr. 6, 1917
Volstead Act. Prohibited manufacture, transportation and sale of beverages containing more than .5 per cent alcohol.		321	70	Voice vote approval		Vetoed, Oct. 27, 1919
				(Reconsideration vote)		
	Dem.	...	...	27	11	Oct. 28, 1919
	Rep.	...	...	38	9	1919
Treaty of Versailles.	Dem.	No vote required		4	42	Rejected, Nov. 19, 1919
	Rep.			35	13	
18th Amendment. Forbade manufacture, sale and transportation of intoxicating liquors.	Dem.	141	64	36	12	Jan. 16, 1920
	Rep.	137	62	29	8	
	Ind.	2	...	..	..
	Proh.	1	...	..	..
	Prog.	1	1	..	..
	Soc.	...	1	..	..
Transportation Act. Reorganized ICC with 11 members and increased powers; authorized loans to railroads; created Railroad Labor Board; provided for consolidation of railroads.		250	150	47	17	Feb. 29, 1920
Treaty of Versailles.	Dem.	No vote required		21	23	Rejected, Mar. 19, 1920
	Rep.			28	12	
Federal Water Power Act. Created federal power commission to license citizens who use navigable streams for power; licenses limited to 50 years.				52	18	June 18, 1920
19th Amendment. Gave women the right to vote.	Dem.	102	70	20	17	Aug. 26, 1920
	Rep.	200	19	36	8	
	Ind.	1	...	..	..
	Prog.	1	...	..	..
Emergency Quota Act. Limited annual number of immigrants from any country to 3 per cent of that nationality living in U. S. in 1910. (Renewed in 1922 for two more years.)		No record vote		78	1	May 19, 1921
Emergency Tariff Act. Raised rates on agricultural articles, wool, sugar, chemicals, etc.	Dem.	...	...	7	27	May 27, 1921
	Rep.	...	...	56	1	
Capper-Volstead Act. Exempted farm co-operatives from antitrust laws.		284	49	58	1	Feb. 18, 1922
Washington Conference Treaties:						
Four Power Pacific Peace Pact. Related to Pacific island possessions of Britain, France, U. S., and Japan.	Dem.	No vote required		12	23	Mar. 24, 1922
	Rep.			55	4	
Five Power Limitation on Naval Armaments Treaty. Powers were U. S., Britain, France, Italy and Japan.		No vote required		74	1	Mar. 29, 1922
Nine Power Treaty. Guaranteed the territorial integrity of China.		No vote required		65	0	Mar. 30, 1922
Fordney-McCumber Tariff. Highly protective, averaging 33.22 per cent; gave tariff commission power to suggest that President increase or decrease rates not more than 50 per cent of original rate on any item to meet competition.	Dem.	...	...	3	24	Sept. 21, 1922
	Rep.	...	...	45	1	
World Court Protocol.	Dem.	No vote required		23	3	Defeated, Mar. 3, 1923
	Rep.			1	46	

* As Sept. 3 was a Sunday, the validity of the President's signature was questioned. Therefore, the bill was re-signed on the following Tuesday.

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Federal Intermediate Credit Act. Lent money to farmers to extent of 75 per cent of value of harvested crops and livestock.		277	3	No record	vote	Mar. 4, 1923
Bonus Bill. Provided 20-year endowment policies for veterans.	Dem.	177	20	32	9	Vetoed, May 15, 1924
	Rep.	175	34	33	8	
	F.L.	1	...	2	..	
	Soc.	1	...	..	..
	Ind.	1	...	..	..
		(Reconsideration vote)				May 19, 1924
	Dem.	145	21	27	9	
	Rep.	166	57	30	17	
	F.L.	...	...	2	..
	Soc.	1	...	..	..
	Ind.	1	...	..	..
Immigration Quota Law. Limited annual number of immigrants to 2 per cent of each country's residents in U. S. in 1890. After 1927, the number was to be limited annually to 150,000. Did not apply to nations of Western Hemisphere.		308	58	69	9	May 26, 1924
World Court Membership.	Dem.	No vote required		36	2	Jan. 27, 1926
	Rep.			40	14	
	F.L.			..	1	
McNary-Haugen Bill. Lent money to farm co-operatives and paid farmers equalizing price on their products.	Dem.	97	70	22	17	Vetoed, Feb. 25, 1927; no reconsideration vote
	Rep.	113	108	24	22	
	F.L.	2	...	1	..	
	Soc.	1	...	..	..
	Ind.	1	...	..	..
McNary-Haugen Bill. (Re-passage of bill the following year.)	Dem.	100	53	28	9	Vetoed, May 23, 1928
	Rep.	101	68	24	14	
	F.L.	2	...	1	..	
	Soc.	1	...	..	..
		(Reconsideration vote)				Defeated, May 25, 1928
	Dem.	No vote required		29	12	
	Rep.			20	19	
	F.L.			1	..	
Norris-Morin Resolution. Would have completed construction of Muscle Shoals for nitrates and power.		251	165	48	25	Pocket veto, June 4, 1928
Kellogg-Briand Pact. Outlawed wars and prescribed arbitration of international disputes.		No vote required		85	1	Jan. 15, 1929
Agricultural Marketing Act. Created federal farm board with power to lend money to farm co-operatives and to create stabilization corporations to buy farm surplus and to store and sell abroad to maintain prices.	Dem.	121	32	33	2	June 15, 1929
	Rep.	245	2	21	32	
	F.L.	1	...	..	..
Hawley-Smoot Tariff. Very high protective tariff, averaging 40.08 per cent but giving President power to initiate reduction or increase in rates.	Dem.	14	132	5	30	June 17, 1930
	Rep.	208	20	39	11	
	F.L.	...	1	..	1	
Bonus Loan Bill. Increased amount veterans might borrow and reduced interest rate.	Dem.	150	...	37	..	Vetoed, Feb. 26, 1931
	Rep.	212	39	34	12	
	F.L.	1	...	1	..	
		(Reconsideration vote)				Feb. 27, 1931
	Dem.	148	...	39	1	
	Rep.	179	79	36	16	
	F.L.	1	...	1	..	
Norris Resolution. Would have completed Muscle Shoals.	Dem.	128	3	35	2	Vetoed, Mar. 3, 1931; no reconsideration vote
	Rep.	87	150	20	26	
	F.L.	1	...	..	..
War Debt Moratorium. Provided for moratorium on payment of interest and war debt installments by nations indebted to U. S.	Dem.	120	95	33	6	Dec. 23, 1931
	Rep.	196	5	36	6	
	F.L.	1	...	..	..
Reconstruction Finance Corporation. Established with a working fund of \$500,000,000 and power to borrow more to release frozen assets in banks and mortgage companies and to help bankrupt railroads.	Dem.	153	43	29	5	Jan. 22, 1932
	Rep.	182	12	34	3	

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Norris-LaGuardia Act. Limited granting of injunctions against labor; required open testimony in open court and outlawed yellow dog contracts.		363	13	75	5	Mar. 23, 1932
Hawes-Cutting Bill. Granted Philippine independence but was rejected by the Philippine legislature because of its economic and immigration provisions.		No record vote (Reconsideration vote)		No record vote		Vetoed, Jan. 13, 1933
	Dem.	191	1	45	1	
	Rep.	82	93	20	25	
	F.L.	1	...	1	..	
20th Amendment. Changed date of meeting of Congress to Jan. 3 and date of Presidential inauguration to Jan. 20; authorized procedure for selection of filling vacancies in Presidency.		335	56	73	3	Jan. 23, 1933
3.2 Percent Liquor Law. Legalized manufacture and sale of 3.2 wines and beers.	Dem. Rep.	No record vote		33 10	19 17	Mar. 22, 1933
Civilian Conservation Corps. Created to relieve unemployment and to work at reforestation, road building and flood control.		No roll-call vote		No roll-call vote		Mar. 31, 1933
Agricultural Adjustment Act. Created the AAA, which was authorized to limit acreage on specified crops at farmers' option and to pay benefits to farmers; money for this purpose to be raised by a process tax, which was declared unconstitutional Jan. 16, 1936.		315	98	52	31	May 12, 1933
Tennessee Valley Authority. Established to develop and sell electric power, to serve as yardstick for electricity rates, to develop rural electrification, to establish flood control, and to produce fertilizer.	Dem. Rep. F.L.	284 17 5	2 89 ...	48 14 1	3 17 ..	May 18, 1933
Federal Securities Act. Required that all stock and bond issues be registered and approved.		No roll-call vote		No roll-call vote		May 27, 1933
Home Owners Refinancing Act. Established the HOLC, which took over mortgages in exchange for bonds in order to save home owners from losing homes.		383	4	No record vote		June 13, 1933
Glass-Steagall Banking Act. Created Federal Deposit Insurance Corporation to insure deposits up to \$5000; required that private banks be either investment or deposit banks, but not both.		No record vote		No roll-call vote		June 16, 1933
National Industrial Recovery Act. Created NRA; authorized establishment of trade associations; suspended antitrust laws; authorized drawing-up of codes of Fair Competition to be accepted by President; guaranteed collective bargaining and required employers to accept approved maximum and minimum wage provisions. (Declared unconstitutional in 1935.)	Dem. Rep. F.L.	266 53 4	25 50 ...	46 10 1	4 20 ..	June 16, 1933
21st Amendment. Repealed prohibition.	Dem. Rep. F.L.	179 109 1	32 89 ...	33 29 1	9 14 ..	Dec. 5, 1933
Gold Reserve Act. Gave President power to devalue gold and to impound for treasury all gold in Federal System and to establish Exchange Stabilization Fund.	Dem. Rep. F.L.	287 68 5	2 38 ...	55 10 1	1 22 ..	Jan. 30, 1934
Farm Mortgage Refinancing Act. Created Federal Farm Mortgage Corporation to assist farmers in payment of mortgages on easier interest terms.		No record vote		No record vote		Jan. 31, 1934
Tydings-McDuffie Act. Gave the Philippine Islands independence.	Dem. Rep. F.L.	No roll-call vote		51 16 1	.. 8 ..	Mar. 24, 1934
Johnson Debt Default Bill. Forbade sale in this country of securities of defaulting countries.		No record vote		No record vote		Apr. 13, 1934
Home Owners Loan Act. Supplemented Home Owners Refinancing Act.		337	1	35	34	Apr. 28, 1934
Securities and Exchange Act. Established Securities and Exchange Commission; required licensing of stock exchanges; made certain speculative practices illegal; gave Federal Reserve Board power to fix margins; required full financial statements from registered companies.	Dem. Rep. F.L.	254 22 4	11 73 ...	47 15 ..	1 12 ..	June 6, 1934

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Trade Agreements Act. Authorized President to reduce tariffs by as much as 50 per cent of prevailing rates for those countries which granted the U.S. most favored nation treatment without the need for Senatorial ratification for three years.	Dem. Rep. F.L.	No record vote		51 5 1	5 28 ..	June 12, 1934
National Housing Act. Created Federal Housing Administration to administer funds for modernizing homes and for lending for new construction.		176	19	No record vote		June 28, 1934
Federal Farm Bankruptcy Act (Frazier-Lemke Act). Declared moratorium on farm mortgage foreclosures. (Declared unconstitutional in May, 1935.)		No record vote		60	16	June 28, 1934
World Court Ratification.	Dem. Rep. F.L. Prog.	No vote required		43 9	20 14 1 1	Defeated, Jan. 29, 1935
Soldiers' Bonus Bill. Would have paid off veterans compensation certificates.		318	90	55	33	Vetoed, May 22, 1935
		322	98	(Reconsideration vote) 40	54	Defeated, May 23, 1935
National Labor Relations Act (Wagner-Connelly Act). Created the NLRB with power to determine appropriate collective bargaining unit subject to elections they supervised at request of the workers; to certify the duly chosen trade union and to take testimony about unfair employer practices and issue cease and desist orders.	Dem. Rep. F.L. Prog.	No record vote		49 12 1 1	4 8	July 5, 1935
Social Security Act. Created social security board to administer old age benefits based on earnings before the age of 65; unemployment administered under state laws and grants to states to aid the needy aged, blind, orphans, widows, etc.		372	33	76	6	Aug. 14, 1935
Glass-Steagall Banking Act. Increased power of Federal Reserve Board of Governors over open market and credit transactions.		No record vote		No record vote		Aug. 23, 1935
Public Utilities Act (Wheeler-Rayburn Act). Required all public utilities to register with the SEC and limited utility holding corporations to first degree unless necessity required greater complexity.	Dem. Rep. F.L. Prog.	203 7 3 6	59 83	No record vote		Aug. 26, 1935
Farm Mortgage Moratorium Act. Allowed three-year moratorium on foreclosures with court permission upon payment of reasonable rental.		No record vote		No record vote		Aug. 29, 1935
Soldiers' Bonus Bill. Made 9-year 3-per cent bonds redeemable on demand.	Dem. Rep. F.L. Prog.	265 72 3 6	29 30	56 15 2 1	9 7	Vetoed, Jan. 24, 1936
		248	32	(Reconsideration vote) 57	12	Jan. 27, 1936
	Dem. Rep. F.L. Prog.	66 3 7	29	16 2 1	7	
Soil Conservation and Domestic Allotment Act. Granted payments to farmers who let their land lie fallow or planted cover crops.	Dem. Rep. F.L. Prog.	246 20 1 ..	25 64 1 7	49 5 1 1	9 11	Mar. 2, 1936
Reciprocal Trade Agreement Act. Extended to June, 1940, period during which President is authorized to negotiate foreign trade under Trade Agreements Act of 1934.		284	0	58	24	Mar. 1, 1937
Neutrality Act. Forbade export of arms and ammunition to belligerents, the sale in this country of belligerents' securities, the use of American ships for carrying munitions; required belligerents to pay upon purchase and carry all purchases in their own ships (cash and carry clause).		377	12	41	15	May 1, 1937

Bill or treaty	Party	House vote		Senate vote		Date enacted	
		Yea	Nay	Yea	Nay		
Judiciary Act. Allowed voluntary retirement of Supreme Court justices and other federal court judges on full pension at age of 70.		No roll-call vote		Unanimous, no roll-call vote		Aug. 25, 1937	
National Housing Act. Established the U. S. Housing Authority to administer loans to local communities and states for rural and urban construction. (Amended in 1938.)		275	86	64	16	Sept. 2, 1937	
National Housing Act Amendment.	Dem.	No record vote		41	25	Feb. 4, 1938	
	Rep.			..	13		
	F.L.			..	1		
	Prog.			..	1		
	Ind.			1	..		
Agricultural Adjustment Act. Continued soil conservation program; provided parity payments and commodity loans to farmers; established crop insurance corporations and ever-normal granary plan.	Dem.	243	54	53	17	Feb. 16, 1933	
	Rep.	14	74	2	11		
	F.L.	5	...	..	2
	Prog.	1	7	..	1		
	Ind.	...	...	1	..
Wage and Hours Act. Provided minimum wage of 25 cents to rise to 40 cents after 6 years; limited hours from 44 per week the first year to 40 after the third year; goods produced by "oppressive child labor" could not be shipped in interstate commerce.	Dem.	247	41	No record vote		June 25, 1938	
	Rep.	31	48				
	F.L.	5	...				
	Prog.	7	...				
Reciprocal Trade Agreement Act. Extended Trade Agreements Act of 1937 three more years.	Dem.	212	20	41	15	Apr. 12, 1940	
	Rep.	5	146	..	20		
	F.L.	...	1	..	2		
	Prog.	...	1	..	..
	Ind.	...	...	1	..
	A.L.	1	...	..	..
Selective Service Act. Established system for compulsory service in armed forces. (Extended in 1941.)	Dem.	211	33	50	17	Sept. 16, 1940	
	Rep.	52	112	8	10		
	F.L.	...	1	..	2		
	Prog.	...	2	..	1		
	Ind.	...	...	..	1
	A.L.	...	1	..	..
Lend-Lease. Provided system whereby U. S. lent goods and munitions to democratic nations in return for services and goods.		260	165	60	31	Mar. 11, 1941	
Selective Service Act Extension. Extended period of service to not more than 30 months in time of peace and eliminated 900,000-man limit of Army.	Dem.	182	65	38	16	Aug. 18, 1941	
	Rep.	21	133	7	13		
	Prog.	...	3	..	1		
	A.L.	...	1	..	..
Declarations of World War II: Against Japan.	Dem.	235	...	56	..	Dec. 8, 1941	
	Rep.	149	1	24	..		
	Prog.	3	...	1	..		
	Ind.	...	...	1	..
	A.L.	1	...	..	..
Against Germany.		393	0	88	0	Dec. 11, 1941	
U. N. Charter Ratification.	Dem.	No vote required		53	..	July 28, 1945	
	Rep.			35	2		
	Prog.			1	..		
Case Bill. Would have set up mediation board, established enforceable 30-day cooling-off periods in labor disputes, outlawed boycotts and sympathy strikes, and authorized court injunctions.	Dem.	97	91	33	13	Voted, June 11, 1946	
	Rep.	133	13	28	6		
	Prog.	...	1	..	1		
	A.L.	...	1	..	..
		(Reconsideration vote)					
	Dem.	96	118	No vote required		Defeated, June 11, 1946	
	Rep.	159	15				
	Prog.	...	1				
	A.L.	...	1				
British Loan Act. Established \$3,750,000,000 credit to Britain, including \$650,000,000 in lend-lease.	Dem.	157	32	29	15	July 15, 1946	
	Rep.	61	122	17	18		
	Prog.	...	1	..	1		
	A.L.	1	...	..	..

Bill or treaty	Party	House vote		Senate vote		Date enacted	
		Yea	Nay	Yea	Nay		
Atomic Energy Commission. Created five-man controlled commission without military representation but with military liaison; permitted Army and Navy to make atomic weapons; forbade distribution of fissionable materials or atomic energy information.		No record vote		No record vote		Aug. 1, 1946	
Greek-Turkey Aid Bill. Authorized \$400,000,000 to furnish aid to Greece and Turkey upon application, subject to withdrawal upon request of countries, of the U. N. Security Council or General Assembly, or of President if improperly used or unnecessary.	Dem.	160	13	32	7	May 22, 1947	
	Rep.	127	93	35	18		
	A.L.	...	1	..	..
Treaty Ratifications:	Dem.	No vote required		37	3	June 14, 1947	
With Italy.	Rep.			42	7		
With Rumania.		No vote required		Voice vote approval		June 14, 1947	
With Bulgaria.		No vote required		Voice vote approval		June 14, 1947	
With Hungary.		No vote required		Voice vote approval		June 14, 1947	
Income Tax Reduction Bill. Would have reduced income tax rates on a sliding scale, ranging from 10.5 to 30 per cent on July 1, 1947.	Dem.	37	97	6	26	Vetoed, June 16, 1947	
	Rep.	183	1	42	2		
	A.L.	...	1	..	..
		(Reconsideration vote)					Defeated, June 17, 1947
	Dem.	35	134	No vote required			
Rep.	233	2					
A.L.	...	1					
Taft-Hartley Bill (Labor-Management Relations Act, 1947). Prohibits closed shops but allows union shops by secret vote of majority of employees; makes unions subject to damage suits for unfair labor practices, such as boycotts or jurisdictional strikes; requires unions to file financial reports; requires union leaders to file statements that they are not Communistic.	Dem.	103	66	17	15	Vetoed, June 20, 1947	
	Rep.	217	12	37	2		
	A.L.	...	1	..	..
		(Reconsideration vote)					June 23, 1947
	Dem.	106	71	20	22		
Rep.	225	11	48	3			
A.L.	...	1	..	..	
Rent Control Bill. Continued federal rent control to Feb. 29, 1948, but permitted 15 per cent increase if mutually agreed to by tenant and landlord for lease running to Dec. 31, 1948 (leases once signed take property out of rent control); decontrolled non-residential buildings.		163	73	Voice vote approval		June 30, 1947	
Presidential Succession Act. Made Speaker of House and President of Senate pro tempore next in line after Vice President.		365	11	50	35	July 18, 1947	
Income Tax Reduction Bill (Second Version). Same provisions as first bill but with effective date changed to Jan. 1, 1948.	Dem.	69	109	12	30	Vetoed, July 18, 1947	
	Rep.	233	2	48	2		
	A.L.	...	1	..	..
		(Reconsideration vote)					Defeated, July 18, 1947
	Dem.	63	105	10	33		
Rep.	236	2	47	3			
A.L.	...	1	..	..	
National Security Act of 1947. Reorganized and co-ordinated armed forces under National Military Establishment headed by Secretary of Defense (of Cabinet rank) and including Secretaries of the Army, the Navy and the Air Force.		Voice vote approval		Voice vote approval		July 26, 1947	
Rent Control Bill. Extended controls through Mar. 31, 1949; provided Emergency Court of Appeals to decide on decontrols or increases recommended by local boards but rejected by Federal Housing Expediter.		220	95	Voice vote approval		Mar. 30, 1948	
Income Tax Reduction Bill. Provided \$4.8 billion reduction in nation's income taxes, effective May 1 and retroactive to Jan. 1.	Dem.	84	64	30	11	Vetoed, Apr. 2, 1948	
	Rep.	205	0	48	0		
	A.L.	0	2	..	..
		(Reconsideration vote)					Apr. 2, 1948
	Dem.	82	84	27	10		
Rep.	229	2	50	0			
A.L.	0	2	..	..	

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Foreign Assistance Act of 1948. Authorized \$5.3 billion 1-year European Recovery Program, \$275 million for military aid to Greece and Turkey, \$463 million in economic and military aid for China, \$60 million for U. N. Fund for Children.	Dem. Rep. A.L.	150 167 0	11 62 2	Voice vote approval		Apr. 3, 1948
Air Force and Navy Aircraft Bill. Appropriated \$3,198,100,000 for 70-group Air Force and expansion of naval aviation.		Voice vote approval		Voice vote approval		May 21, 1948
Selective Service Act. Provided for registration of all men 18-25 and induction of enough men 19-25 to maintain Army of 837,000, Navy and Marine Corps of 666,882, and Air Force of 502,000.		259	136	Voice vote approval		June 24, 1948
Displaced Persons Bill. Admitted 205,000 European displaced persons, including 3,000 orphans.		Voice vote approval		Voice vote approval		June 25, 1948
Foreign Aid Appropriations. Appropriated funds for 1 year: \$5.055 billion for ERP, \$400 million for China, \$1.3 billion for occupied areas, \$225 million for Greece and Turkey, \$35 million for U. N. Fund for Children, \$70,710,228 for IRO.		318	62	Voice vote approval		June 28, 1948
Housing Bill. Authorized Federal loans for private construction of low-cost homes and apartments; liberalized loans to manufacturers of prefabricated houses.		351	9	Voice vote approval		Aug. 10, 1948
U. N. Loan. Authorized loan of \$65 million for building U. N. permanent headquarters in New York City.		164	27	No record vote		Aug. 11, 1948
Bill to raise salaries: President's, \$75,000 to \$100,000 with new \$50,000 tax-free allowance; Vice President's and Speaker's, \$20,000 to \$30,000 with \$10,000 tax-free allowance.	Dem. Rep. A.L.	Voice vote approval		42 26 ..	0 9 ..	Jan. 19, 1949
Rent-control bill. Extended controls through June 30, 1950; permitted states and localities to end curbs before that time with consent of governor.	Dem. Rep. A.L.	196 66 1	48 95 0	52 26 ..	0 11 ..	Mar. 30, 1949
ERP authorization: \$5,430,000,000 for European recovery, consisting of \$1,150,000,000 for April-June and \$4,280,000,000 for fiscal year starting July 1.		Voice vote approval		Voice vote approval		Apr. 19, 1949
Housing and slum-clearance bill. Provided for 810,000 dwelling units in 6 years, 5-year slum-clearance program, \$325,000,000 in loans and grants for farm housing aid.		Voice vote approval		Voice vote approval		July 15, 1949
North Atlantic Treaty. (For full text, consult index.)	Dem. Rep.	No vote required		50 32	2 11	July 21, 1949
National Security bill. Changed National Military Establishment to executive Department of Defense; made Departments of Army, Navy and Air Force "military departments."		356	7	Voice vote approval		Aug. 10, 1949
Military Assistance Program. Authorized \$1,314,010,000 in military aid: for Atlantic Pact countries, \$1 billion; Greece and Turkey, \$211,370,000; "general area" of China, \$75,000,000; and South Korea, Iran and Philippines, \$27,640,000.	Dem. Rep. A.L.	172 51 0	24 84 1	Voice vote approval		Oct. 28, 1949
Foreign-aid appropriations: \$5,809,990,000, consisting of \$4,852,380,000 for ERP, \$912,500,000 for Army-occupied areas, \$45,000,000 for Greek-Turkish aid, and \$110,000 for joint Congressional Foreign-Aid Committee.		Voice vote approval		Voice vote approval		Oct. 2, 1949
Minimum-wage bill. Raised minimum wage from 40c to 75c an hour.		131	19	Voice vote approval		Oct. 26, 1949
Appropriations to support Military Assistance Program.		No record vote		Voice vote approval		Oct. 29, 1949

Bill or treaty	Party	House vote		Senate vote		Date enacted	
		Yea	Nay	Yea	Nay		
Farm bill. Supported prices for wheat, corn, cotton, rice, peanuts at 90% of parity through 1950, 80-90% through 1951, and 75-90% on sliding-scale basis thereafter.		175	34	46	7	Oct. 31, 1949	
Bill to repeal federal taxes on oleomargarine.		262	106	59	20	Mar. 16, 1950	
Natural-gas bill (Kerr bill). Would have prevented FPC control on prices for natural gas distributed by interstate pipelines.		176	174 (No reconsideration vote)	44	38	Vetoed Apr. 15, 1950	
Housing bill. Authorized over \$3.5 billion in government loans and mortgage insurance for expansion of housing program. Also turned over to state and local authorities about 150 wartime and veterans' housing projects.		Voice vote approval		Voice vote approval		Apr. 20, 1950	
Displaced persons bill. Extended 1948 act to June 30, 1951; increased authorized entry from 205,000 to 341,000; and eliminated discriminatory provisions.		Voice vote approval		49	25	June 16, 1950	
Rent-control bill. Extended federal control to Dec. 31, 1950, and for 6 months longer in communities wanting it.	Dem. Rep. A.L.	150 25 1	39 106 0	30 10 ...	18 6 ...	June 23, 1950	
Draft-extension bill. Extended registration and classification for draft to July 9, 1951; authorized President to call National Guard and organized reserves for 21-mo. service.		315	4	76	0	June 30, 1950	
Bill to increase Air Force and Army. Expanded Air Force to 70 groups and from 410,000 to 502,000 men; expanded Army from 592,000 to 837,000 men.		315	4	76	0	July 11, 1950	
Social Security bill. Will raise present employer's and employee's 1½% payroll tax to 2% in 1954, 2½% in 1960, 3% in 1965, and 3¼% in 1970; provided financial aid to permanently disabled persons in need.		374	1	Voice vote approval		Aug. 23, 1950	
Omnibus appropriations bill. Appropriated \$35.554 billion, including \$62.5 million loan to Spain, \$14,680,084,443 for Defense Dept., \$1.225 billion for rearming Western Europe, \$2.526 billion for Marshall plan, \$26.9 million for Point-4 program.		Voice vote approval		Voice vote approval		Sept. 6, 1950	
Defense Production Act of 1950. Gave President power to curb prices, wages, and consumer credit, and to increase defense production.		Voice vote approval		Voice vote approval		Sept. 8, 1950	
Bill to draft doctors, dentists, etc., up to 50 years of age, for 21-mo. service.		Voice vote approval		Voice vote approval		Sept. 9, 1950	
Internal Security Act of 1950. Provided for registering of Communists and their internment in times of emergency.	Dem.	186	18	24	6	Vetoed Sept. 22, 1950	
	Rep.	126	1	27	1		
	A.L.	0	1	...	...	Sept. 23, 1950
		(Reconsideration vote)					
	Dem.	161	45	26	10		
	Rep.	125	2	31	0	Sept. 23, 1950	
	A.L.	0	1	...	...
Tax-increase bill. Raised income taxes about 17%, corporation taxes about 15%; imposed 10% excise tax on TV sets and quick-freeze units.		328	7	Voice vote approval		Sept. 23, 1950	

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Emergency defense-appropriations bill. Appropriated \$17,099,902,285, including \$3.734 billion for Navy, \$3.166 billion for Army, \$260 million for atomic-weapon research, etc.		286	30	Voice vote approval		Sept. 27, 1950
Civil-defense bill. Provided \$3.1 billion to be supplemented by state and local governments for bomb shelters and other civil defense.		Voice vote approval		Voice vote approval		Jan. 12, 1951
Emergency presidential powers. Gave President powers to modify existing defense contracts.		Voice vote approval		Voice vote approval		Jan. 12, 1951
Twenty-second Amendment. Limit of presidential terms. (For full text, consult index.)	Dem. Rep. A.L.	47 238 0	120 0 1	13 46 ...	23 0 ...	Feb. 26, 1951
Navy modernization program. Provided for 173 new warships and other vessels suitable for modern atomic warfare.		365	0	Voice vote approval		Mar. 11, 1951
GI insurance law. Provided free \$10,000 life insurance to all armed-forces personnel.		Voice vote approval		Voice vote approval		Apr. 25, 1951
Indian grain-loan act. U. S. to lend India \$190 million to buy 2 million tons of food grains.		255	82	Voice vote approval		June 15, 1951
Reciprocal Trade Agreements Act. Extended reciprocal trade agreement act to June 12, 1953, and directed President to end any concessions to Soviet bloc.		Voice vote approval		Voice vote approval		June 16, 1951
Draft act. Extended draft to July 1, 1955, and increased service to 24 months; provided preliminary study for universal military service.		339	41	Voice vote approval		June 19, 1951
Defense Production Act. Continued controls to June 30, 1952; barred rollbacks below Jan. 25-Feb. 24, 1951, level.	Dem. Rep. Ind.	97 139 0	108 50 1	41 30 ...	0 10 ...	June 30, 1951
Defense housing bill. Designed to spur building in defense production areas and near military installations.		Voice vote approval		Voice vote approval		Sept. 1, 1951
Pension bill. Raised to \$120 a month the \$60-\$72 pensions to veterans disabled by nonservice disabilities.		Voice vote approval		Voice vote approval		Vetoed Aug. 6, 1951
		318	45	(Reconsideration vote) 69		9 Sept. 18, 1951
Arms appropriation. \$56,937,808,030 voted for armed forces.		Unanimous vote		Voice vote approval		Oct. 18, 1951
German peace resolution. Declared state of war with Germany ended.		376	0	Voice vote approval		Oct. 19, 1951
Revenue Act of 1951. Increased income and excise taxes. (See Income tax in index.)	Dem. Rep. Ind.	147 37 1	34 126 0	Voice vote approval		Oct. 20, 1951
Taft-Hartley Law amendment. Permitted union-shop contracts without first polling employees.		307	18	Voice vote approval		Oct. 22, 1951
Atom-data bill. Authorized exchange of certain nonweapon atom data with friendly nations.		Voice vote approval		Voice vote approval		Oct. 30, 1951
Mutual Security Appropriation Bill. \$7,328,903,976 voted for global military and economic aid, including \$100 million for Spain.		Voice vote approval		Voice vote approval		Oct. 31, 1951

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Japanese Peace Treaty. Formally ended state of war declared Dec. 7, 1941.		No vote required		66	10	Mar. 20, 1952
Tidelands Oil Bill. Gave clear title to states for submerged oil and other mineral deposits off their shores.		247	89 (No reconsideration vote)	50	35	Vetoed, May 29, 1952
McCarran-Walter Immigration and Nationality Act. Ended racial bars on immigration and retained quota system based on national origin.		205	53	Voice vote approval		Vetoed, June 25, 1952
			(Reconsideration vote)			
	Dem.	107	90	25	18	June 27, 1952
	Rep.	170	23	32	8	1952
	Ind.	1	0	...	...
West German Peace Contracts. Established working basis for relations with Bonn Government.		No vote required		77	5	July 1, 1952
New Puerto Rican Constitution. Made Puerto Rico a commonwealth and gave it greater home rule.		Voice vote approval		Voice vote approval		July 3, 1952
Income Tax Bill. Authorized deductions on contributions up to 20%, instead of previous 15%.		Voice vote approval		Voice vote approval		July 8, 1952
Fair Trade Acts of 1952. Allowed manufacturers and retailers to set prices on trade-marked articles where state laws concur.		196	10	64	16	July 14, 1952
Korea "G.I. Bill of Rights." Granted Korean veterans with 90 days service as of June 27, 1950, rights and benefits similar to those received by veterans of World War II.		322	1	Voice vote approval		July 16, 1952
Social Security Amendment. Increased Social Security benefits to aged by 12½% and authorized pensioners to earn up to \$75 a month. Minimum payments set at \$5 a month.		Voice vote approval		Voice vote approval		July 18, 1952

How a Bill Becomes a Law

When a Senator or a Representative introduces a bill, he sends it to the clerk of his house, who gives it a number and title. This is the *first reading*, and the bill is referred to the proper committee.

The committee may decide the bill is unwise or unnecessary and *table* it, thus killing it at once. Or it may decide the bill is worthwhile and hold hearings to listen to facts and opinions presented by experts and other interested persons. After members of the committee have debated the bill and perhaps offered amendments, a vote is taken; and if the vote is favorable, the bill is sent back to the floor of the house.

The clerk reads the bill sentence by sentence to the house, and this is known as the *second reading*. Members may then debate the bill and offer amendments. In the House of Representatives, the time for debate is limited by a *cloture rule*, but there is no such restriction in the Senate except by a two-thirds vote for cloture. This makes possible a *filibuster*, in which one or more opponents hold the floor to defeat the bill.

The *third reading* is by title only, and the bill is put to a vote, which may be by voice or roll call, depending on the circumstances and parliamentary rules. Members who must be absent at the time but who wish to record

their vote may be paired if each negative vote has a balancing affirmative one.

The bill then goes to the other house of Congress, where it may be defeated, or passed with or without amendments. If the bill is defeated, it dies. If it is passed with amendments, a joint Congressional committee must be appointed by both houses to iron out the differences.

After its final passage by both houses, the bill is sent to the President. If he approves, he signs it, and the bill becomes a law. However, if he disapproves, he *veto*es the bill by refusing to sign it and sending it back to the house of origin with his reasons for the veto. The objections are read and debated, and a roll-call vote is taken. If the bill receives less than a two-thirds vote, it is defeated and goes no farther. But if it receives a two-thirds vote or greater, it is sent to the other house for a vote. If that house also passes it by a two-thirds vote, the President's veto is *overridden*, and the bill becomes a law.

Should the President desire neither to sign nor to veto the bill, he may retain it for ten days, Sundays excepted, after which time it automatically becomes a law without signature. However, if Congress has adjourned within those ten days, the bill is automatically killed, that process of indirect rejection being known as a *pocket veto*.

The Cairo Conference

Important provisions of the Conference, which was held Nov. 22-26, 1943:

The several military missions have agreed upon future military operations against Japan. The Three Great Allies expressed their resolve to bring unrelenting pressure against their brutal enemies by sea, land, and air. This pressure is already rising.

The Three Great Allies are fighting this war to restrain and punish the aggression of Japan. They covet no gain for themselves and have no thought of territorial expansion. It is their purpose that Japan shall be stripped of all the islands in the Pacific which she has seized or occupied since the beginning of the first World War

in 1914, and that all the territories Japan has stolen from the Chinese, such as Manchuria, Formosa, and the Pescadores, shall be restored to the Republic of China. Japan will also be expelled from all other territories which she has taken by violence and greed. The aforesaid Three Great Powers, mindful of the enslavement of the people of Korea, are determined that in due course Korea shall become free and independent.

With these objectives in view the three Allies, in harmony with those of the United Nations at war with Japan, will continue to persevere in the serious and prolonged operations necessary to procure the unconditional surrender of Japan.

The Teheran Conference

(Nov. 28-Dec. 1, 1943)

The President of the United States of America, the Premier of the Union of Soviet Socialist Republics, and the Prime Minister of the United Kingdom, have consulted with each other and with the Prime Minister of Iran, desire to declare the mutual agreement of their three Governments regarding relations with Iran.

The Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom recognize the assistance which Iran has given in the prosecution of the war against the common enemy, particularly by facilitating transportation of supplies from overseas to the Soviet Union. The three Governments realize that the war has caused special economic difficulties for Iran and they are agreed that they will continue to make available to the Government of Iran such economic assistance as may be possible, having regard to the heavy demands made upon them by their worldwide military operations and to the worldwide shortage of transport, raw materials and supplies for civilian consumption.

With respect to the post-war period, the Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom are in accord with the Government of Iran that any economic problem confronting Iran at the close of hostilities should receive full consideration along with those of the other members of the United Nations by conferences or international agencies held or created to deal with international economic matters.

The Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom are at one with the Government of Iran in their desire for the maintenance of the independence, sovereignty and territorial integrity of Iran. They count upon the participation of Iran together with all other peace-loving nations in the establishment of international peace, security and prosperity after the war in accordance with the principles of the Atlantic Charter, to which all four governments have continued to subscribe.

The Yalta Conference

Important provisions of the Conference, which was held Feb. 4-11, 1945:

The Occupation and Control of Germany

We have agreed on common policies and plans for enforcing the unconditional surrender terms which we shall impose together on Nazi Germany after German armed resistance has been finally crushed. These terms will not be made known until the final defeat of Germany has been accomplished. Under the agreed plan, the forces of the three powers will each occupy a separate zone of Germany. Coordinated administration and control has been provided for under the plan through a central Control Commission, consisting of

the supreme commanders of the three powers, with headquarters in Berlin. It has been agreed that France should be invited by the three powers, if she should so desire, to take over a zone of occupation, and to participate as a fourth member of the Control Commission. The limits of the French zone will be agreed upon by the four Governments concerned through their representatives on the European Advisory Commission.

It is our inflexible purpose to destroy German militarism and nazism and to ensure that Germany will never again be able to disturb the peace of the world. We are determined to disarm and disband all

German armed forces; break up for all time the German General Staff that has repeatedly contrived the resurgence of German militarism; remove or destroy all German military equipment; eliminate or control all German industry that could be used for military production; bring all war criminals to just and swift punishment and exact reparation in kind for the destruction wrought by the Germans; wipe out the Nazi Party, Nazi laws, organizations, and institutions, remove all Nazi and militarist influences from public office and from the cultural and economic life of the German people; and take in harmony such other measures in Germany as may be necessary to the future peace and safety of the world. It is not our purpose to destroy the people of Germany, but only when nazism and militarism have been extirpated will there be hope for a decent life for Germans, and a place for them in the comity of nations.

Terms Under Which Russia Entered the War Against Japan

The leaders of the Three Great Powers—the Soviet Union, the United States of America and Great Britain—have agreed that in two or three months after Germany has surrendered and the war in Europe has terminated the Soviet Union shall enter into the war against Japan on the side of the Allies on condition that:

1. The status quo in Outer Mongolia (The Mongolian People's Republic) shall be preserved;
2. The former rights of Russia violated by the treacherous attack of Japan in 1904 shall be restored, viz.:

(a) the southern part of Sakhalin as well as all the islands adjacent to it shall be returned to the Soviet Union,

(b) the commercial port of Dairen shall be internationalized, the preeminent interests of the Soviet Union in this port being safeguarded and the lease of Port Arthur as a naval base of the U.S.S.R. restored,

(c) the Chinese-Eastern Railroad and the South-Manchurian Railroad which provides an outlet to Dairen shall be jointly operated by the establishment of a joint Soviet-Chinese Company, it being understood that the preeminent interests of the Soviet Union shall be safeguarded and that China shall retain full sovereignty in Manchuria;

3. The Kurile Islands shall be handed over to the Soviet Union.

It is understood, that the agreement concerning Outer Mongolia and the ports and railroads referred to above will require concurrence of Generalissimo Chiang Kai-shek. The President will take measures in order to obtain this concurrence on advice from Marshal Stalin.

The Heads of the Three Great Powers have agreed that these claims of the Soviet Union shall be unquestionably fulfilled after Japan has been defeated.

For its part the Soviet Union expresses its readiness to conclude with the National Government of China a pact of friendship and alliance between the U.S.S.R. and China in order to render assistance to China with its armed forces for the purpose of liberating China from the Japanese yoke.

The Potsdam Declaration

Text of the declaration issued at Potsdam, Germany, July 28, 1945, outlining the terms under which Japan would be allowed to surrender:

1. We, the President of the United States, the President of the national government of the Republic of China and the Prime Minister of Great Britain, representing the hundreds of millions of our countrymen, have conferred and agreed that Japan shall be given the opportunity to end this war.

2. The prodigious land, sea, and air forces of the United States, the British Empire and China, many times reinforced by their armies and air fleets from the west, are poised to strike the final blow at Japan. This military power is sustained and inspired by the determination of all allied nations to prosecute the war against Japan until she ceases to resist.

3. The result of the futile and senseless German resistance to the might of the aroused free peoples of the world stands forth in awful clarity as an example to the people of Japan.

The might that now converges on Japan is immeasurably greater than that which, when applied to the resisting Nazis, necessarily laid waste to the land, the industry, and the method of life of the whole German people.

The full application of our military power, backed by our resolve, will mean the inevitable and complete destruction of the Japanese armed forces and just as inevitably the utter devastation of the Japanese homeland.

4. The time has come for Japan to decide whether she will continue to be controlled by these self-willed militaristic advisers whose unintelligent calculations have brought the empire of Japan to the threshold of annihilation, or whether she will follow the path of reason.

5. The following are our terms: we will not deviate from them; there are no alternatives; we shall brook no delay.

6. There must be eliminated for all time the authority and influence of those

who have deceived and misled the people of Japan into embarking on world conquest, for we insist that a new order of peace, security, and justice will be impossible until irresponsible militarism is driven from the world.

7. Until such a new order is established and until there is convincing proof that Japan's war-making power is destroyed, points in Japanese territory to be designated by the Allies shall be occupied to secure the achievement of the basic objectives we are here setting forth.

8. The terms of the Cairo declaration shall be carried out and Japanese sovereignty shall be limited to the Islands of Honshu, Hokkaido, Kyushu, Shikoku and such minor islands as we determine.

9. Japanese military forces after being completely disarmed shall be permitted to return to their homes with the opportunity to lead peaceful and productive lives.

10. We do not intend that the Japanese shall be enslaved as a race or destroyed as a nation, but stern justice shall be meted out to all war criminals, including those who have visited cruelties upon our prisoners.

The Japanese government shall remove all obstacles to the revival and strength-

ening of democratic tendencies among the Japanese people. Freedom of speech and religion and of thought, as well as respect for the fundamental human rights, shall be established.

11. Japan shall be permitted to maintain such industries as will sustain her economy and permit the payment of just reparation in kind, but not those industries which will enable her to rearm for war.

To this end, access to, as distinguished from control of, raw materials shall be permitted. Eventual Japanese participation in world trade relations shall be permitted.

12. The occupying forces of the Allies shall be withdrawn from Japan as soon as these objectives have been accomplished and there has been established in accordance with the freely expressed will of the Japanese people a peacefully inclined and responsible government.

13. We call upon the government of Japan to proclaim now the unconditional surrender of all Japanese armed forces, and to provide proper and adequate assurances of their good faith in such action. The alternative for Japan is prompt and utter destruction.

North Atlantic Treaty

Signed at Washington, D.C., April 4, 1949

The Parties to this Treaty reaffirm their faith in the purposes and principles of the Charter of the United Nations and their desire to live in peace with all peoples and all governments.

They are determined to safeguard the freedom, common heritage and civilization of their peoples, founded on the principles of democracy, individual liberty and the rule of law.

They seek to promote stability and well-being in the North Atlantic area.

They are resolved to unite their efforts for collective defense and for the preservation of peace and security.

They therefore agree to this North Atlantic Treaty:

Article 1

The Parties undertake, as set forth in the Charter of the United Nations, to settle any international disputes in which they may be involved by peaceful means in such a manner that international peace and security, and justice, are not endangered, and to refrain in their international relations from the threat or use of force in any manner inconsistent with the purposes of the United Nations.

Article 2

The Parties will contribute toward the further development of peaceful and friendly international relations by strength-

ening their free institutions, by bringing about a better understanding of the principles upon which these institutions are founded, and by promoting conditions of stability and well-being. They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between any or all of them.

Article 3

In order more effectively to achieve the objectives of this Treaty, the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack.

Article 4

The Parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened.

Article 5

The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all; and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defense recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith,

individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area.

Any such armed attack and all measures taken as a result thereof shall immediately be reported to the Security Council. Such measures shall be terminated when the Security Council has taken the measures necessary to restore and maintain international peace and security.

Article 6

For the purpose of Article 5 an armed attack on one or more of the Parties is deemed to include an armed attack on the territory of any of the Parties in Europe or North America, on the Algerian departments of France, on the occupation forces of any Party in Europe, on the islands under the jurisdiction of any Party in the North Atlantic area north of the Tropic of Cancer or on the vessels or aircraft in this area of any of the Parties.

Article 7

This Treaty does not affect, and shall not be interpreted as affecting, in any way the rights and obligations under the Charter of the Parties which are members of the United Nations, or the primary responsibility of the Security Council for the maintenance of international peace and security.

Article 8

Each Party declares that none of the international engagements now in force between it and any other of the Parties or any third state is in conflict with the provisions of this Treaty, and undertakes not to enter into any international engagement in conflict with this Treaty.

Article 9

The Parties hereby establish a council, on which each of them shall be represented, to consider matters concerning the implementation of this Treaty. The council shall be so organized as to be able to meet promptly at any time. The council shall set up such subsidiary bodies as may be necessary; in particular it shall establish immediately a defense committee which shall recommend measures for the implementation of Articles 3 and 5.

Article 10

The Parties may, by unanimous agreement, invite any other European state in a position to further the principles of this

Treaty and to contribute to the security of the North Atlantic area to accede to this Treaty. Any state so invited may become a party to the Treaty by depositing its instrument of accession with the Government of the United States of America. The Government of the United States of America will inform each of the Parties of the deposit of each such instrument of accession.

Article 11

This Treaty shall be ratified and its provisions carried out by the Parties in accordance with their respective constitutional processes. The instruments of ratification shall be deposited as soon as possible with the Government of the United States of America, which will notify all the other signatories of each deposit. The Treaty shall enter into force between the states which have ratified it as soon as the ratifications of the majority of the signatories, including the ratifications of Belgium, Canada, France, Luxembourg, the Netherlands, the United Kingdom and the United States, have been deposited and shall come into effect with respect to other states on the date of the deposit of their ratifications.

Article 12

After the Treaty has been in force for ten years, or at any time thereafter, the Parties shall, if any of them so requests, consult together for the purpose of reviewing the Treaty, having regard for the factors then affecting peace and security in the North Atlantic area, including the development of universal as well as regional arrangements under the Charter of the United Nations for the maintenance of international peace and security.

Article 13

After the Treaty has been in force for twenty years, any Party may cease to be a party one year after its notice of denunciation has been given to the Government of the United States of America, which will inform the Governments of the other Parties of the deposit of each notice of denunciation.

Article 14

This Treaty, of which the English and French texts are equally authentic, shall be deposited in the archives of the Government of the United States of America. Duly certified copies thereof will be transmitted by that Government to the Governments of the other signatories.

Tripartite Security Treaty

(United States, Australia, New Zealand)

Major provisions of the Tripartite agreement signed on Sept. 1, 1951, at San Francisco:

1. The parties undertake to settle by peaceful means any international disputes in which they may be involved.

2. The parties will maintain and develop their individual and collective capacity to resist armed attack.

3. The parties will consult together whenever the territorial integrity, political

independence or security of any of the parties is threatened in the Pacific.

4. Each party recognizes that an armed attack in the Pacific area on either of the other parties would be dangerous to its own peace and safety.

A Defense Treaty similar in its provisions to the Tripartite Security Treaty was signed by the United States and the Philippines in Washington, D. C., Aug 30, 1951.

United States-Japanese Treaty

Main provisions of the U. S.-Japanese Security Treaty signed at San Francisco on Sept. 8, 1951:

1. Japan grants and the U. S. accepts the right to dispose U. S. land, air and sea forces in and about Japan. Such forces may be utilized to contribute to the maintenance of international peace and security in the Far East and to the security of Japan against armed attack from without, including assistance given at the express request of the Japanese government to put down large scale riots and disturbances in Japan caused through instigation or intervention by an outside power or powers.

5. The parties hereby establish a council, consisting of their foreign ministers or their deputies, to consider matters concerning the implementation of this treaty.

6. This treaty shall remain in force indefinitely.

2. Japan will not grant without the prior consent of the U. S. any bases or any rights, powers or authority whatsoever relating to bases, or the right of garrison or maneuver or transit of ground, air or naval forces of any third power.

3. This treaty shall expire whenever in the opinion of the governments of the U. S. and of Japan, U. N. arrangements or alternate individual or collective dispositions satisfactorily provide for the maintenance of international peace and security in the Japan area.

Japanese Peace Treaty

The Japanese Peace Treaty was signed at San Francisco on September 8, 1951, by 49 nations; the U.S.S.R., Poland and Czechoslovakia were present but refused to sign. Among the major provisions of the treaty are the following:

Peace: The state of war between Japan and the Allies is terminated.

Sovereignty: Japan's full sovereignty is recognized as is its right to apply for U. N. membership.

Territory: Japan recognizes the independence of Korea; renounces all rights, titles or claims to Formosa, the Pescadores, the Kuriles, Sakhalin, the Pacific Islands formerly under mandate to Japan, the Antarctic area, Spratly Island and the Paracels.

Japan agrees to U. N. trusteeship over the Ryukyu and Daito Islands, the Bonins, Rosario Island, the Volcano Islands, Parece Vela and Marcus Island. Disposition of Japanese property on these islands is to be negotiated by Japan and the administering authorities.

Security: Japan agrees to settle its international disputes peaceably, to refrain from the threat of or the use of force and to abide by the principles of the U. N.

All occupation forces are to be withdrawn as soon as possible but not later than 90 days after a majority of the sig-

natory countries have given notice of ratification of this treaty. Nothing in this provision shall, however, prevent the stationing or retention of foreign armed forces in Japanese territory by agreement with one or more of the Allies.

Political-Economic Clauses: Japan may enter into fisheries treaties; may negotiate most-favored-nation trade and maritime treaties with the Allies; renounces all special rights and interests in China.

Japan accepts the judgments of the International Military Tribunal and Allied War Crimes Courts.

Claims and Property: Japan recognizes its responsibility to pay reparations but the Allies recognize its limited economic capacity; therefore, Japan shall pay through goods to be manufactured in Japan from raw materials provided by the victimized nations and by services. The Allies may retain certain properties seized from Japan but require the latter to return their properties within 6 months. Japan recognizes Allied industrial, literary and artistic property rights. It agrees to indemnify prisoners of war who suffered unduly but renounces similar claims against the Allies.

Settlement of Disputes: Any disagreements arising out of the interpretation of this treaty and not otherwise settled shall be submitted to the International Court of Justice.

THE UNITED STATES ARMED SERVICES

THE UNITED STATES MILITARY ACADEMY

Source: U. S. Military Academy.

Established by an Act of Congress on Mar. 16, 1802, the U. S. Military Academy opened on July 4, 1802, at West Point, N. Y., with fewer than a dozen cadets. In 1812, 250 cadets were authorized, and a regular curriculum was established.

The present 2500 cadets include:

- 4 from each Congressional district
- 8 from each State at large
- 4 each from Hawaii and Alaska
- 6 from the District of Columbia
- 4 natives from Puerto Rico
- 2 from the Panama Canal Zone
- 3 recommended by the Vice President
- 40 graduates of "honor military schools"
- 40 sons of veterans of World Wars I or II who died as a result of war service
- 89 sons of members of the Regular Army, Navy or Marine Corps
- 180 from the Regular Army and National Guard

4 from the Republic of the Philippines

All appointments are made by the President upon recommendation of the respective nominating authorities.

Candidates must be between the ages of 17 and 22, unmarried, and able to meet the mental, physical and physical aptitude requirements. They may satisfy the educational requirements by taking the regular entrance examinations, by presenting acceptable secondary school certificates and passing special examinations in English and mathematics, or by presenting certificates showing completion of at least one semester of acceptable college work. However, all candidates must take the West Point Aptitude Test.

A cadet receives \$936 for each of his 4 years at the Academy, plus an allowance for the cost of one ration a day. From this, he must pay all expenses other than for medical attention and quarters. Upon graduation with a degree of Bachelor of Science, he is commissioned as a second Lieutenant and must serve at least 3 years.

THE UNITED STATES NAVAL ACADEMY

Source: U. S. Naval Academy.

On October 10, 1845, the Naval School was established at Fort Severn, Annapolis, Maryland. Five years later it was renamed the United States Naval Academy, and the following year a regular four-year course was adopted. At present, the curriculum consists of courses in the following departments: executive; seamanship and navigation; ordnance and gunnery; marine engineering; aviation; electrical engineering; mathematics; English, history and government; foreign languages; hygiene; and physical training.

Candidates are selected as follows:

- 5 from the District of Columbia
- 40 sons of men and women killed in action or who have died, or may hereafter die of wounds or injuries, or disease contracted, in active service in World Wars I and II
- 75 annually from among sons of officers and enlisted men in the regular Army, Navy, Marine Corps, Air Force and Coast Guard.
- 160 enlisted Navy and Marine personnel selected annually by competitive examination
- 160 annually chosen by the Secretary of the Navy from the Naval and Marine Corps Reserves
- 5 Puerto Ricans chosen by the Resident Commissioner of Puerto Rico
- 1 on the recommendation of the Governor of Puerto Rico
- 4 Filipinos designated by the President of the United States
- 1 from the Canal Zone
- 20 annually from schools designated by the Army and Navy as honor schools and from NROTC schools.
- 20 from the American republics and the Dominion of Canada
- Unlimited: Sons of persons who have been or shall hereafter be awarded the Congressional Medal of Honor.

Each Senator, Representative, delegate to Congress, and the Vice President may have not more than 5 Midshipmen at the Naval Academy. The President selects the 5 from the District of Columbia, the 40 sons of deceased veterans of World Wars and the 75 sons of officers and enlisted men in the regular Army, Navy, Marine Corps, Air Force and Coast Guard. The President also appoints the sons of holders of the Medal of Honor.

Subject to the existence of vacancies and the availability of accommodations, the Secretary of the Navy may nominate for appointment a limited number of additional candidates. These must be recommended by the Academic Board from among the fully qualified, regularly appointed alternate and competitive candidates of the same year who were unable to enter because of the appointment of men preceding them in order of nomination.

Candidates for admission must be between 17 and 22 years of age on July 1 of their entering year. They may qualify by taking entrance examination, by presenting an acceptable secondary school certificate and taking special examinations in English and mathematics, or by completing a sufficient number of acceptable college courses. Candidates must also meet the physical requirements and must be unmarried.

Midshipmen are paid \$973.44 a year. Graduates of the Academy are granted Bachelor of Science degrees and are commissioned as ensigns in the Navy or second lieutenants in the Marine Corps. In addition, at the present time, a limited number of the members of graduating classes may be commissioned in the U. S. Air Force.

THE U. S. COAST GUARD ACADEMY

Source: U. S. Coast Guard Academy.

On July 31, 1876, the Coast Guard Academy, then known as the "School of Instruction" of the Revenue Cutter Service, was established by law.

The schooner J. C. DOBBIN was first used as a school ship, later being succeeded in 1878 by the CHASE. In 1890 the CHASE established winter quarters at Curtis Bay, South Baltimore, Maryland, and in 1907 was superseded by the ITASCA. In 1910 the School was moved to New London. In 1914, the school was named the Revenue Cutter Academy. The following year, when the Revenue Cutter Service was merged with the Life Saving Service to form the Coast Guard, the present name of Coast Guard Academy was established. In 1932, the Coast Guard Academy was moved from Fort Trumbull to another site in New London, where it has remained to this day.

The Academy is accredited by the Engineering Council for professional development and grants the degree of Bachelor of Science in General Engineering to each graduate. The curriculum includes mathematics, physics, marine engineering, seamanship, navigation, history, literature, naval architecture, and other engineering courses.

Candidates must be between 17 and 22 years of age, physically sound, unmarried, and at least 5'6" tall. They must agree to remain unmarried until graduation and to serve at least 4 years after graduation. Cadets are paid \$980 a year and are commissioned as ensigns in the Coast Guard upon graduation.

U. S. MERCHANT MARINE ACADEMY

Source: U. S. Merchant Marine Academy.

The U. S. Merchant Marine Cadet Corps was established Mar. 15, 1938, and its Academy is located on the south shore of Long Island Sound at Kings Point, N. Y. The Academy has a complement of 800 cadet-midshipmen representing every U. S. state, D. C., Alaska, the Canal Zone, Hawaii, and Puerto Rico. In addition, it is authorized to receive each year, for the full period of training, not more than 12 candidates from Latin American republics.

Appointments to the Academy are governed by a state and territory quota system, based on population, and are made through competitive examinations. A candidate must be an unmarried citizen be-

tween 17 and 21, with a one-year age waiver granted to veterans. He must have 15 high-school credits, including 1 unit in algebra, 1 in plane geometry, 1 in physics, and 3 in English.

The course is 4 years, consisting of 1 year as Fourth Classman at the Academy, 1 year as Third Classman aboard a merchant ship, and 2 years as Second and First Classman at the Academy. Study includes marine engineering, navigation, electricity, ship construction, naval science and tactics, economics, business, languages, history, and other subjects.

On completion of their courses, cadet-midshipmen are examined for their original Merchant Marine license as deck or engineer officers in any ship in the U. S. Merchant Marine. They also receive Bachelor of Science degrees and commissions as officers in the U. S. Maritime Service and the U. S. Naval Reserve. Over 9,000 officers have been graduated from the Cadet Corps and its Academy.

History of the Armed Services

Source: Encyclopaedia Britannica.

U. S. ARMY

When Gen. Washington, on July 3, 1775, took command of the Colonial militia (about 8,000 men) besieging Boston, the event marked the union of the forces of the 13 separate Colonies under one head, and the U. S. Army was born. In Jan., 1776, the Continental Congress decided that these troops should be separate in organization from those of local communities and established them as the U. S. Regular Army. When these forces were disbanded after the war only some 80 officers and men were retained to guard U. S. Army stores. From this humble beginning, in the ensuing years, the strength of the U. S. Army rose or fell according to national and international conditions. A peak strength of over 7,000,000 was reached in World War II.

U. S. NAVY

In Sept. and Oct., 1775, Gen. Washington maintained 5 schooners and a sloop with officers and men from his army for the purpose of preying on inbound English supply vessels and thereby caused the birth of the U. S. Navy. In Dec., 1775, the Continental Congress expanded this by providing for construction of naval craft and the appointment of a marine committee (one member from each colony) which continued until 1794 when further ships and manpower were provided for by act of Congress. Upon completion of these ships in 1798, a Navy Department was established as the controlling agency, and the secretary given Cabinet rank.

U. S. AIR FORCES

Until the establishment, on July 26, 1947, of the Department of Defense which united the services under one command, U. S.

military air forces operated under the several commands. In the Army, operations came under the Signal Corps until 1918, when the U. S. Air Service was established. In 1926, the U. S. Air Corps came into being and remained until 1942 when the name was changed to the U. S. Air Forces.

In the Navy, ship-based fighters and bombers were originally attached to the several fleets and under the orders of the fleet commanders.

Marine Corps aviation came under control of the Navy.

With the establishment of the Defense Department, in 1947, the air arm was given equal rank with the ground and sea forces.

U. S. COAST GUARD

This service was originally created by an act of Congress approved on Jan. 28, 1915, which combined the then Revenue Cutter Service and the Life-Saving Service. On July 1, 1939, the Lighthouse Service of the Department of Commerce was also consolidated into this unit. The Coast Guard,

through its antecedents, is the oldest organization under the Federal government and, until the Navy Department was established in 1798, it served as the only U. S. armed force afloat. It operates under the Treasury Department in time of peace, serving in the capacity of life and property saving, prevention of smuggling, clearance of debris in harbors, maintaining an ice patrol in northern waters, flood service, etc. In time of war it is attached to the Navy Department, and in the recent conflict, it performed useful and admirable service.

U. S. MARINE CORPS

Founded in 1775 and observing its official birthday on Nov. 10, the U. S. Marine Corps was developed to provide the Navy with a trained land-fighting force. This unit has been used successfully in every U. S. war beginning with the Revolution when it consisted of 2 battalions. It reached its high in achievement in the recent war when its some 400,000 men and officers performed historic deeds in the Pacific Theater of Operations.

Armies of the World

Source: *Encyclopaedia Britannica*

Country	Army personnel ¹	Year	Country	Army personnel ¹	Year
Albania.....	60,000	(?)	Iran.....	130,000	(?)
Argentina.....	100,000	1950	Italy.....	250,000	(?)
Australia.....	20,000	1951	Mexico.....	50,000	1950
Belgium.....	150,000	1951	Netherlands.....	175,000	1949
Brazil.....	118,000	1948	New Zealand.....	11,000	(?)
Bulgaria.....	55,000	(?)	Norway.....	15,000	1951
Canada.....	43,120 ⁴	1951	Pakistan.....	250,000	1949
Chile.....	25,000	1948	Poland.....	510,000	1950
China (Communist).....	4,000,000	1951	Portugal.....	64,000	1951
China (Nationalist).....	500,000	1951	Rumania.....	300,000 ⁴	1951
Czechoslovakia.....	160,000	(?)	South Africa, U. of.....	4,640	(?)
Denmark.....	12,000	(?)	Spain.....	450,000	(?)
Egypt.....	160,000	(?)	Sweden.....	60,000	(?)
Finland.....	34,400	(?)	Turkey.....	500,000	(?)
France.....	500,000	1951	U.S.S.R.....	3,300,000	1951
Greece.....	132,000	1948	United Kingdom.....	527,000	1951
Hungary.....	65,000	(?)	United States.....	1,552,000	1951
India.....	300,000	1950	Yugoslavia.....	500,000	1950

¹ Estimated, unless otherwise indicated. ² Not specified. ³ Stabilized peacetime army. ⁴ Official figure. ⁵ Fixed by 1947 peace treaty. ⁶ Despite the 1947 peace treaty, which limited the army to 125,000 men.

Selective Service Classifications

I-A: Available for immediate service.

I-A-O: Conscientious objector available for non-combatant military service.

I-C: Members of the armed forces, Coast Guard, Coast and Geodetic Survey or Public Health Service or certain registrants separated therefrom.

I-D: Members of reserve components or student taking military training.

II-A: Registrant deferred because of civilian occupation (except agriculture).

II-C: Deferred because of agricultural occupation.

III-A: Registrant with dependents.

IV-A: Registrant who has completed service; sole surviving son of parents whose other child or children died in World War II.

IV-B: Officials deferred by law.

IV-C: Aliens.

IV-D: Ministers of religion or divinity students.

IV-E: Conscientious objectors opposed to combatant and non-combatant training and service.

IV-F: Physically, mentally or morally unfit.

V-A: Registrant over age of liability for military service.

U. S. Armed Forces Monthly Pay Rates for Officers

Source: Department of Defense, Public Information Office.

Army, Air Force and Marine Corps	Rank	Pay grade	Monthly pay	Monthly allowances for quarters	
				With dependents	With no dependents
General of the Army	Fleet Admiral	O-8	\$963.30	\$171.00	\$136.80
General	Admiral	O-8	963.30	171.00	136.80
Lieutenant General	Vice Admiral	O-8	963.30	171.00	136.80
Major General	Rear Admiral (upper half)	O-8	963.30	171.00	136.80
Brigadier General	Rear Admiral (lower half) and Commodore	O-7	800.28	171.00	136.80
Colonel	Captain	O-6	592.80	136.80	119.70
Lieutenant Colonel	Commander	O-5	474.24	136.80	102.60
Major	Lieutenant Commander	O-4	400.14	119.70	94.20
Captain	Lieutenant	O-3	326.04	102.60	85.50
First Lieutenant	Lieutenant (junior grade)	O-2	274.18	94.20	77.10
Second Lieutenant	Ensign	O-1	222.30	85.50	68.40
Chief Warrant Officer (appt. by Sec. of Army)	Chief Warrant Officer	W-4	332.90	119.70	94.20
Same	Same	W-3	302.64	102.60	85.50
Chief Warrant Officer	Same	W-2	264.82	94.20	77.10
Warrant Officer (junior grade)	Warrant Officer	W-1	219.42	85.50	68.40

Special Pay for Longevity

(Amounts listed below are monthly increases in the basic pay for longevity of service)

O-8 —\$29.64 after 30 years.	O-1 —\$14.82 after 2, 4, 6, 8, 10, 12 and 14 years.
O-7 —\$29.64 after 26 and 30 years.	W-4 —\$15.14 after 6, 8, 10, 12, 14, 16, 18, 22, 26 and 30 years.
O-6 —\$14.82 after 16 years; \$29.64 after 18, 22, 26 and 30 years.	W-3 —\$7.57 after 6, 8, 10, 12, 14 and 16 years; \$15.14 after 18, 22, 26 and 30 years.
O-5 —\$14.82 after 12, 14 and 16 years; \$29.64 after 18, 22 and 26 years.	W-2* —\$7.57 after 8, 10, 12, 14 and 16 years; \$15.14 after 18, 22, 26 and 30 years.
O-4 —\$14.82 after 8, 10, 12, 14 and 16 years; \$29.64 after 18, 22 and 26 years.	W-1† —\$7.57 after 6, 8, 10, 12, 14 and 16 years; \$15.14 after 18, 22 and 26 years.
O-3 —\$14.82 after 4, 6, 8, 10, 12, 14, 16, 18 and 22 years.	
O-2 —\$14.82 after 2, 4, 6, 8, 10, 12 and 14 years.	

* For figuring increases use \$264.82 for original basic pay. † For figuring increases use \$219.42 for original basic pay.

Insignia and Ranks of the Armed Forces

Army, Air Force and Marines		Navy	
Insignia	Rank	Insignia	Rank
Five stars	General of the Army, Air Force	Five stars	Fleet Admiral
Four stars	General	Four stars	Admiral
Three stars	Lieutenant General	Three stars	Vice Admiral
Two stars	Major General	Two stars	Rear Admiral
One star	Brigadier General	One star	Commodore
Silver eagle	Colonel	Silver eagle	Captain
Silver maple leaf	Lieutenant Colonel	Silver maple leaf	Commander
Gold maple leaf	Major	Gold maple leaf	Lt. Commander
Two silver bars	Captain	Two silver bars	Lieutenant
One silver bar	First Lieutenant	One silver bar	Lieutenant (jg)
One gold bar	Second Lieutenant	One gold bar	Ensign
Gold bar with rounded ends, brown-enamel top, longitudinal center of gold ($\frac{3}{16}$ " wide x 1" long)	Chief Warrant Officer, Commissioned Warrant Officer (Marines)	Warrant specialty in silver	Commissioned Warrant Officer
Same as Chief Warrant Officer but with latitudinal center of gold	Warrant Officer (jg)	Warrant specialty in gold	Warrant Officer

U. S. Armed Forces Monthly Pay Rates for Enlisted Personnel

Source: Department of Defense, Public Information Office.

Army rank	Air Force rank	Marine rank	Navy rank	Pay grade	Monthly pay
Master Sergeant	Master Sergeant	Master Sergeant	Chief Petty Officer	E-7	\$206.39
Sergeant 1st Class	Technical Sergeant	Technical Sergeant	Petty Officer 1st Class	E-6	175.81
Sergeant	Staff Sergeant	Staff Sergeant	Petty Officer 2nd Class	E-5	145.24
Corporal	Airman 1st Class	Sergeant	Petty Officer 3rd Class	E-4	122.30
Private 1st Class	Airman 2nd Class	Marine Corporal	Navy Seaman	E-3	99.37
Private of the Army	Airman 3rd Class	Pvt. 1st Class Marine	Seaman Apprentice	E-2	85.80
Army Recruit*	Airman*	Private*	Seaman Recruit*	E-1	83.20
Army Recruit†	Airman†	Private†	Seaman Recruit†	E-1	78.00

* With over 4 months' service. † With less than 4 months' service.

BASIC MONTHLY ALLOWANCE FOR QUARTERS: No dependents, \$51.30 for all pay grades; 1 dependent, \$51.30 for pay grades E-1 through E-3, \$77.10 for pay grades E-4 through E-7; 2 dependents, \$77.10 for all pay grades; over 2 dependents, \$96.90 for all pay grades.

Special Pay for Longevity

(Amounts listed below are monthly increases in the basic pay for longevity of service)

E-7—\$7.64 after 4, 6, 8, 10, 12, 14 and 16 years; \$15.28 after 18, 22 and 26 years.	E-4—\$7.64 after 2, 4, 6, 8, 10, 12, 14 and 16 years; \$15.28 after 18 years.
E-6—\$7.64 after 4, 6, 8, 10, 12, 14 and 16 years; \$15.28 after 18 and 22 years.	E-3—\$7.64 after 2, 4, 6, 8, 10, 12 and 14 years.
E-5—\$7.64 after 2, 4, 6, 8, 10, 12, 14 and 16 years; \$15.28 after 18 and 22 years.	E-2—\$7.64 after 2, 4, 6, 8 and 10 years.
	E-1—\$7.64 after 2 and 4 years.

Special Pay

Members of the uniformed services are entitled to receive special pay for the performance of certain duties required by competent orders.

Member of Aircraft or Submarine Crew

Pay grade	Monthly rate	Pay grade	Monthly rate
O-8.....	\$150.00	W-2.....	\$100.00
O-7.....	150.00	W-1.....	100.00
O-6.....	210.00	E-7.....	75.00
O-5.....	180.00	E-6.....	68.00
O-4.....	150.00	E-5.....	60.00
O-3.....	120.00	E-4.....	53.00
O-2.....	110.00	E-3.....	45.00
O-1.....	100.00	E-2.....	38.00
W-4.....	100.00	E-1.....	30.00
W-3.....	100.00		

Hazardous Duty

The monthly rate is \$50 for all E pay grades and \$100 for all W and O pay grades.

Hazardous duty includes:

1. Frequent and regular participation in aerial flights not as a crew member.
2. Frequent and regular participation in glider flights.
3. Parachute jumping as an essential part of military duty.
4. Demolition of explosives as a primary duty, including training for such duty.
5. Duty at a submarine escape training tank when such duty involves participation in training.
6. Duty at Navy Deep Sea Diving School or Navy experimental diving unit when

such duty involves participation in training.

Medical Officers

The monthly rate is \$100 for pay grades O-2 through O-8.

Diving as in Salvage and Repair

The monthly rate is not less than \$5 or more than \$30, plus \$5 for each diving hour spent in actual salvage or repair operations. This pay applies to pay grades E-1 through E-7 only.

Sea and Foreign Duty

Pay grade	Monthly rate	Pay grade	Monthly rate
E-7.....	\$23.00	E-3.....	\$9.00
E-6.....	20.00	E-2.....	8.00
E-5.....	16.00	E-1.....	8.00
E-4.....	13.00		

Korean Combat Pay

The monthly rate is \$45 for all pay grades.

Service in Korea does not necessarily entitle a service member to combat pay. Generally, to be entitled to combat pay during a month, he must have been subjected to hostile fire for not less than 6 days during the month while serving with a combat unit of regimental size or smaller, or in a vessel or aircraft. However, if the member received incentive or special pay for aviation, submarine, parachute, medical or dental duty, etc., during a month, he is not entitled to combat pay for that month.

ALLOWANCES FOR SUBSISTENCE

Officers receive \$47.88 per month. Enlisted personnel receive allowances for subsistence under the following provisions: (1) when rations in kind are not available, \$2.57 per day; (2) when permission to mess separately is granted, \$1.20 per day; (3) when assigned to duty under emergency conditions where no government messing facilities are available, up to and not to exceed \$3.42 per day.

U. S. Navy Combatant Vessels

Type	Number*
Carriers.....	15
Light carriers and carrier escorts.....	15
Battleships.....	4
Cruisers.....	19
Destroyers and destroyer escorts.....	250
Submarines.....	100
Amphibious craft, mine and patrol ships, and auxiliaries.....	761†
Total.....	1,164†

* Commissioned; as of July 1, 1952. † Approximate.
‡ In addition, there are 31 commissioned vessels in Military Sea Transportation Service.

Casualties of U. S. Major Wars

Source: Department of Defense.

War	Branch of service	Numbers engaged	Battle deaths	Other deaths	Total deaths	Wounds not mortal	Total casualties ¹
Revolutionary War 1775 to 1783	Army	.....	4,044	.....	.....	6,004	.....
	Navy	.....	342	.....	.....	114	.....
	Marines	.....	49	.....	.....	70	.....
	Total	.....	4,435	.....	.....	6,188	.....
War of 1812 1812 to 1815	Army	.....	1,950	.....	.....	4,000	.....
	Navy	.....	265	.....	.....	439	.....
	Marines	.....	45	.....	.....	66	.....
	Total	.....	2,260	.....	.....	4,505	.....
Mexican War 1846 to 1848	Army	.....	1,721	11,550	13,271	4,102	17,373
	Navy	.....	1	.....	.....	3	.....
	Marines	.....	11	.....	.....	47	.....
	Total	.....	1,733	.....	.....	4,152	.....
Civil War ² 1861 to 1865	Army	.....	110,238	249,290	359,528	280,040	639,568
	Navy	.....	2,112	2,411	4,523	1,710	6,233
	Marines	.....	64	312	376	144	520
	Total	.....	112,414	252,013	384,427	281,894	646,321
Spanish-American War 1898	Army	280,564	345	2,565	2,910	1,512	4,422
	Navy	22,875	10	0	10	47	57
	Marines	3,321	6	0	6	21	27
	Total	306,760	361	2,565	2,926	1,580	4,506
World War I 1917 to 1918	Army	4,057,101	50,510	69,446	119,956	193,663	313,619
	Navy	473,262	436	7,285	7,721	884	8,605
	Marines	78,827	2,457	787	3,244	7,714	10,958
	Total	4,609,190	53,403	77,815	130,921	202,261	333,182
World War II 1941 to 1945	Army ³	10,420,000	237,049	68,957	306,006	571,822	877,828
	Navy	4,424,557	36,488	23,618	60,106	32,754	92,860
	Marines	669,100	19,568	4,089	23,657	55,396	79,053
	Total	15,513,657	293,105	96,664	389,769	659,972	1,049,741

¹ Excludes captured or interned and missing in action who were subsequently returned to military control. ² Union forces only. Totals should probably be somewhat larger as data on disposition of prisoners are far from complete. ³ Army data include Air Force. NOTE: All data are subject to revision. For wars before World War I, information represents best data from available records. However, due to incomplete records and possible differences in usage of terminology, reporting systems, etc., figures should be considered estimates. Leaders (.....) indicate that information is not available.

U. S. Casualties in Korea

As of Oct. 17, 1952, according to the Defense Dept., 10,184 U. S. servicemen had been killed in the Korean War, 90,114 had been wounded, and 12,819 were missing, making total casualties 122,117. Breakdown of casualties by services: Army, 96,244; Navy, 1,662; Air Force, 1,296; Marine Corps, 22,915.

WORLD WAR II CASUALTIES TO THE OTHER NATIONS

NOTE: The information included in the table below was gathered from letters from official sources and from official and semiofficial documents. The British Commonwealth figures are official. U. S. figures are to be found elsewhere in this section.

Country	Killed	Wounded	Missing	Prisoners of war	Total
The Axis Nations					
Austria.....	220,000	170,000	80,000	498,800	968,800
Bulgaria.....	30,000	.....	.....	.....	30,000
Germany.....	3,250,000	7,250,000	12,900,000*	.....	23,400,000
Hungary.....	70,000	.....	.....	.....	70,000
Italy.....	722,000	2,305,500	1,044,000*	.....	4,071,500
Japan.....	1,471,000	2,191,000	6,115,000*	.....	9,777,000
Rumania.....	63,000	.....	137,000*	.....	200,000
The United Nations					
Belgium.....	38,000	121,000	71,000*	.....	230,000
Brazil.....	451	2,722	23	35	3,231
British Commonwealth:					
Australia.....	23,365	39,803	6,030	26,363	95,561
Canada.....	37,476	53,174	1,843	9,045	101,538
Colonies.....	6,877	6,972	14,208	8,115	36,172
India.....	24,338	64,354	11,754	79,489	179,935
New Zealand.....	10,033	19,314	2,129	8,453	39,929
South Africa, U. of.....	6,840	14,363	1,841	14,589	37,633
United Kingdom.....	244,723	277,090	53,039	180,405	755,257
Total.....	353,652	475,070	90,844	326,459	1,246,025
China.....	3,211,419†	.....	.....	.....	3,211,419
Czechoslovakia.....	6,683	8,017	1,581	1,705	17,986
Denmark.....	3,200	.....	.....	.....	3,200
Finland.....	52,609	125,000	.....	.....	177,609
France.....	250,000	400,000	1,500,000*	.....	2,150,000
Greece.....	72,200	.....	.....	.....	72,200
Netherlands.....	9,600	20,000	25,000*	.....	54,600
Norway.....	8,418	.....	16	.....	8,434
U.S.S.R.....	6,115,000	14,012,000	3,290,000*	.....	23,417,000
Yugoslavia.....	305,000	425,000	.....	170,000	900,000

* Includes prisoners of war. † Includes total dead, wounded and missing.

U. S. Armed Forces Personnel, 1934-52

Year	Army*	Air Force*	Navy	Marines	Coast Guard†	Men‡	Women
1934.....	137,584	.....	92,312	16,361	9,985	245,299	958
1935.....	138,569	.....	95,053	17,260	10,303	249,947	935
1936.....	166,724	.....	106,292	17,248	9,545	289,311	953
1937.....	178,733	.....	113,617	18,223	10,066	309,556	1,017
1938.....	184,126	.....	119,088	18,356	9,968	320,472	1,098
1939.....	188,565	.....	125,202	19,432	10,064	332,089	1,110
1940.....	267,767	.....	160,997	28,277	13,621	455,660	1,381
1941.....	1,460,998	.....	284,427	54,359	19,036	1,793,680	6,104
1942.....	3,074,184	.....	640,570	142,613	58,998	3,902,112	14,253
1943.....	6,993,102	.....	1,741,750	308,523	154,976	9,068,994	129,357
1944.....	7,992,868	.....	2,981,365	475,604	169,264	11,400,450	218,651
1945.....	8,266,373	.....	3,380,817	474,680	171,518	12,018,974	274,414
1946.....	1,889,690	.....	983,398	155,592	29,736	2,970,688	57,992
1947.....	989,664	.....	486,245	92,222	18,972	1,548,472	19,659
1948.....	552,239	387,730	405,789	83,609	19,929	1,415,216	14,151
1949.....	658,694	419,347	448,500	86,000	23,326	1,594,481	18,060
1950.....	593,167	411,277	381,538	74,279	23,190	1,438,206	22,055
1951§.....	1,552,000	850,000	740,000	204,000	29,000	3,420,000	40,000

* Prior to July 28, 1947, when the National Military Establishment was established, the Air Force was a part of the Army. † Not including the men in the Coast Guard during peacetime. ‡ From 1942 to and including 1945, the Coast Guard was part of the Navy; in peacetime it is attached to the Treasury Department. § Estimated.

NOTE: On June 30, 1952, the estimated strength of the Armed Forces was: Army, 1,663,000; Navy, 801,000; Air Force, 939,000; Marines, 237,000; Coast Guard, 34,000.

THE DECLARATION OF INDEPENDENCE IN CONGRESS, JULY 4, 1776

*The unanimous DECLARATION of the thirteen united STATES OF
AMERICA.*

WHEN, in the course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume, among the powers of the earth, the separate and equal station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident that all men are created equal, that they are endowed, by their Creator, with certain unalienable rights, that among these are life, liberty, and the pursuit of happiness. That to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed, that whenever any form of government becomes destructive of these ends, it is the right of the people to alter or to abolish it, and institute new government, laying its foundation on such principles, and organizing its powers in such form as to them shall seem most likely to effect their safety and happiness. Prudence, indeed, will dictate that governments long established, should not be changed for light and transient causes; and accordingly all experience hath shown that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same object, evinces a design to reduce them under absolute despotism, it is their right, it is their duty, to throw off such government, and to provide new guards for their future security. Such has been the patient sufferance of these Colonies, and such is now the necessity which constrains them to alter their former systems of government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute tyranny over these States. To prove this, let facts be submitted to a candid world.

He has refused his assent to laws, the most wholesome and necessary for the public good.

He has forbidden his governors to pass laws of immediate and pressing importance, unless suspended in their operation till his assent should be obtained; and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other laws for the accommodation of large districts of people, unless those people would relinquish the right of representation in the legislature, a right inestimable to them, and formidable to tyrants only.

He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their public records, for the sole purpose of fatiguing them into compliance with his measures.

He has dissolved representative houses repeatedly, for opposing with manly firmness his invasions on the rights of the people.

He has refused for a long time, after such dissolutions, to cause others to be elected, whereby the legislative powers, incapable of annihilation, have returned

NOTE: On April 12, 1776, the legislature of North Carolina authorized its delegates to the Continental Congress to join with others in a declaration of separation from Great Britain; the first colony to instruct its delegates to take the actual initiative was Virginia on May 15. On June 7, 1776, Richard Henry Lee of Virginia offered a resolution to the Congress to the effect "that these United Colonies are, and of right, ought to be, free and independent States. . . ." A committee, consisting of Thomas Jefferson, John Adams, Benjamin Franklin, Robert R. Livingston and Roger

Sherman was organized to "prepare a declaration to the effect of the said first resolution." The Declaration of Independence was adopted on July 4, 1776.

Most delegates signed the Declaration August 2, but George Wythe (Va.) signed August 27; Richard Henry Lee (Va.), Elbridge Gerry (Mass.) and Oliver Wolcott (Conn.) in September; Matthew Thornton (N. H.), not a delegate until September, in November; and Thomas McKean (Del.), although present on July 4, not until 1781 by special permission, having served in the army in the interim.

to the people at large for their exercise; the State remaining, in the meantime, exposed to all the dangers of invasion from without, and convulsions within.

He has endeavored to prevent the population of these States; for that purpose obstructing the laws for naturalization of foreigners; refusing to pass others to encourage their migrations hither, and raising the conditions of new appropriations of lands.

He has obstructed the administration of justice by refusing his assent to laws for establishing judiciary powers.

He has made judges dependent on his will alone, for the tenure of their offices, and the amount and payment of their salaries.

He has erected a multitude of new offices, and sent hither swarms of officers to harass our people, and eat out their substance.

He has kept among us, in times of peace, standing armies, without the consent of our legislatures.

He has affected to render the military independent of and superior to the civil power.

He has combined with others to subject us to a jurisdiction foreign to our constitution and unacknowledged by our laws; giving his assent to their acts of pretended legislation:

For quartering large bodies of armed troops among us:

For protecting them, by a mock trial, from punishment for any murders which they should commit on the inhabitants of these States:

For cutting off our trade with all parts of the world:

For imposing taxes on us without our consent:

For depriving us, in many cases, of the benefits of trial by jury:

For transporting us beyond seas to be tried for pretended offenses:

For abolishing the free system of English laws in a neighboring province, establishing therein an arbitrary government, and enlarging its boundaries, so as to render it at once an example and fit instrument for introducing the same absolute rule into these colonies:

For taking away our charters, abolishing our most valuable laws, and altering fundamentally the forms of our governments:

For suspending our own legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.

He has abdicated government here, by declaring us out of his protection, and waging war against us.

He has plundered our seas, ravaged our coasts, burnt our towns, and destroyed the lives of our people.

He is, at this time, transporting large armies of foreign mercenaries to complete the works of death, desolation, and tyranny, already begun, with circumstances of cruelty and perfidy, scarcely paralleled in the most barbarous ages, and totally unworthy the head of a civilized nation.

He has constrained our fellow citizens, taken captive on the high seas, to bear arms against their country, to become the executioners of their friends and brethren, or to fall themselves by their hands.

He has excited domestic insurrections amongst us, and has endeavored to bring on the inhabitants of our frontiers, the merciless Indian savages, whose known rule of warfare is an undistinguished destruction of all ages, sexes, and conditions.

In every stage of these oppressions we have petitioned for redress in the most humble terms: our repeated petitions have been answered only by repeated injury. A prince whose character is thus marked by every act which may define a tyrant, is unfit to be the ruler of a free people.

Nor have we been wanting in attentions to our British brethren. We have warned them, from time to time, of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity, and we have conjured them by the ties of our common kindred to disavow these usurpations, which would inevitably interrupt our connections and correspondence. They too have been deaf to the voice of justice and of consanguinity. We must, therefore, acquiesce in the necessity which denounces our separation, and hold them, as we hold the rest of mankind, enemies in war, in peace friends.

WE, therefore, the Representatives of the United States of America, in General Congress assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do in the name, and by authority of the good people of these Colonies, solemnly publish and declare, That these United Colonies, are, and of right ought to be, *free and independent States*; that they are absolved from all allegiance to the British crown, and that all political connexion between them and the State of Great Britain, is, and ought to be, totally dissolved; and that as *free and independent States*, they have full power to levy war, conclude peace, contract alliances, establish commerce, and to do all other acts and things which *independent States* may of right do. And for the support of this declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our lives, our fortunes, and our sacred honour.

JOHN HANCOCK.

New Hampshire.

Josiah Bartlett,
Wm. Whipple,
Matthew Thornton.

Rhode Island.

Step. Hopkins,
William Ellery.

Connecticut.

Roger Sherman,
Sam'l Huntington,
Wm. Williams,
Oliver Wolcott.

New York.

Wm. Floyd,
Phil. Livingston,
Frans. Lewis,
Lewis Morris.

New Jersey.

Richd. Stockton,
Jno. Witherspoon,
Fras. Hopkinson,
John Hart,
Abra. Clark.

Pennsylvania.

Robt. Morris,
Benjamin Rush,
Benja. Franklin,
John Morton,
Geo. Clymer,
Jas. Smith,
Geo. Taylor,
James Wilson,
Geo. Ross.

Massachusetts-Bay.

Saml. Adams,
John Adams,
Robt. Treat Paine,
Elbridge Gerry.

Delaware.

Caesar Rodney,
Geo. Read,
Tho. M'Kean.

Maryland.

Samuel Chase,
Wm. Paca,
Thos. Stone,
Charles Carroll of Carrollton.

Virginia.

George Wythe,
Richard Henry Lee,
Th. Jefferson,
Benja. Harrison,
Ths. Nelson, Jr.,
Francis Lightfoot Lee,
Carter Braxton.

North Carolina.

Wm. Hooper,
Joseph Hewes,
John Penn.

South Carolina.

Edward Rutledge,
Thos. Heyward, Junr.,
Thomas Lynch, Junr.,
Arthur Middleton.

Georgia.

Button Gwinnett,
Lyman Hall,
Geo. Walton.

IN CONGRESS

JANUARY, 18, 1777. }

Ordered:

That an authenticated copy of the Declaration of Independency, with the names of the Members of Congress subscribing the same, be sent to each of the United States, and that they be desired to have the same put on record.

By order of Congress.

Attest, CHAS. THOMSON, Secy. A true copy. JOHN HANCOCK, *Presidt.*

The Statue of Liberty

The Statue of Liberty ("Liberty Enlightening the World") is a 225-ton bronze female figure, 152 ft. 5 in. in height, facing the ocean from Bedloe's Island in New York Harbor. The right hand holds aloft a torch, and the left hand carries a tablet upon which is inscribed: "July 4, 1776."

The statue was designed by Frédéric Auguste Bartholdi, at the request of the French government, as a present to the U. S. to commemorate the centennial of American independence. It cost \$450,000.

The pedestal, 151 ft. 1 in. in height, was erected by the U. S., and its cost of \$350,000 was met by popular subscription in this country. The cornerstone was laid Aug.

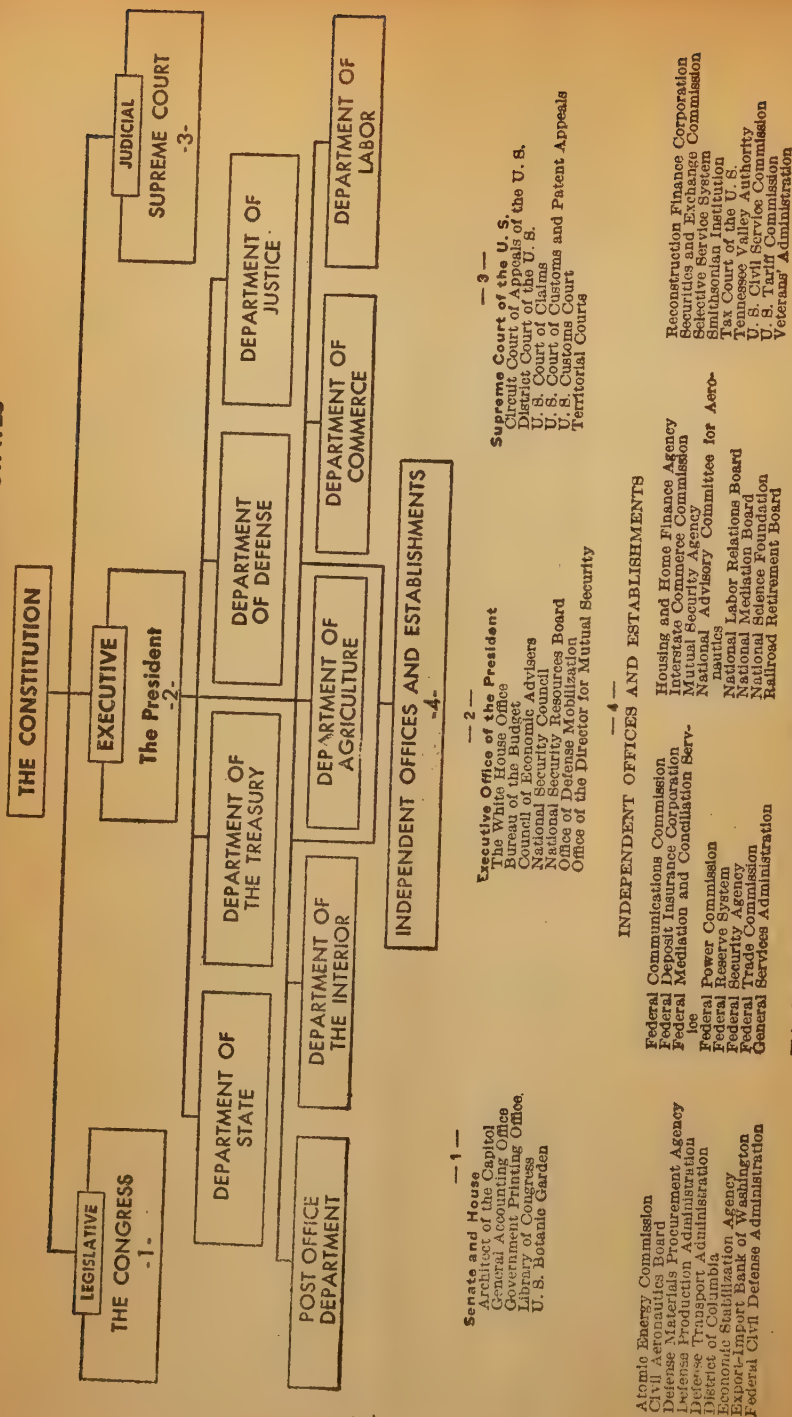
5, 1884, and the unveiling of the statue took place Oct. 28, 1886.

On a tablet inside the main entrance of the pedestal is engraved the following sonnet, written by Emma Lazarus:

The New Colossus

Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land;
Here at our sea-washed, sunset gates shall stand
A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
Mother of Exiles. From her beacon hand
Glows world-wide welcome; her mild eyes com-
mand
The air-bridged harbor that twin cities frame.
"Keep, ancient lands, your storied pomp!" cries she
With silent lips. "Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I'll lift my lamp beside the golden door."

THE GOVERNMENT OF THE UNITED STATES



This chart seeks to show only the more important agencies of the Federal Government.

CONSTITUTION of the UNITED STATES OF AMERICA

THE oldest federal constitution in existence was framed by a convention of delegates from twelve of the thirteen original states in Philadelphia in May 1787, Rhode Island failing to send a delegate. George Washington presided over the session, which lasted until September 17, 1787. The draft (originally a preamble and seven Articles) was submitted to all thirteen states and was to become effective when ratified by nine states. It went into effect on the first Wednesday in March 1789, having been ratified by New Hampshire, the ninth state to approve, on June 21, 1788. The states ratified the Constitution in the following order:

Delaware	December 7, 1787	South Carolina	May 23, 1788
Pennsylvania	December 12, 1787	New Hampshire	June 21, 1788
New Jersey	December 18, 1787	Virginia	June 25, 1788
Georgia	January 2, 1788	New York	July 26, 1788
Connecticut	January 9, 1788	North Carolina	November 21, 1789
Massachusetts	February 6, 1788	Rhode Island	May 29, 1790
Maryland	April 28, 1788		

Outline of the Constitution

ARTICLE I

SEC. 1. Legislative powers; in whom vested.

SEC. 2. House of Representatives, how and by whom chosen—Qualifications of a Representative—Representatives and direct taxes, how apportioned—Enumeration—Vacancies to be filled—Power of choosing officers, and of impeachment.

SEC. 3. Senators, how and by whom chosen—How classified—State Executive, when to make temporary appointments, in case, etc.—Qualifications of a Senator—President of the Senate, his right to vote—President pro tem., and other officers of the Senate, how chosen—Power to try impeachments—When President is tried, Chief Justice to preside—Sentence.

SEC. 4. Times, etc., of holding elections, how prescribed—At least one Session in each year.

SEC. 5. Membership—Quorum—Adjournments—Rules—Power to punish or expel—Journal—Time of adjournments, how limited, etc.

SEC. 6. Compensation—Privileges—Disqualification in certain cases.

SEC. 7. House to originate all revenue bills—Veto—Bill may be passed by two-thirds of each house, notwithstanding, etc.—Bill, not returned in ten days, to become a law—Provisions as to orders, concurrent resolutions, etc.

SEC. 8. Powers of Congress.

SEC. 9. Provision as to migration or importation of certain persons—Habeas Corpus—Bills of attainder, etc.—Taxes, how apportioned—No export duty—No commercial preference—Money, how drawn from treasury, etc.—No titular nobility—Officers not to receive presents, etc.

SEC. 10. States prohibited from the exercise of certain powers.

ARTICLE II

SEC. 1. President; his term of office—Electors of President; number and how appointed—Electors to vote on same day—Qualification of President—On whom his duties devolve in case of his removal, death, etc.—President's compensation—His oath of office.

SEC. 2. President to be commander in chief—He may require opinions of Cabinet Officers, etc., may pardon—Treaty-making power—Nomination of certain officers—When President may fill vacancies.

SEC. 3. President shall communicate to Congress—He may convene and adjourn Congress, in case of disagreement, etc.—Shall receive ambassadors, execute laws, and commission officers.

SEC. 4. All civil offices forfeited for certain crimes.

ARTICLE III

SEC. 1. Judicial powers—Tenure—Compensation.

SEC. 2. Judicial power; to what cases it extends—Original jurisdiction of Supreme Court—Appellate—Trial by jury, etc.—Trial, where.

SEC. 3. Treason defined—Proof of—Punishment of.

ARTICLE IV

SEC. 1. Each State to give credit to the public acts, etc., of every other State.

SEC. 2. Privileges of citizens of each State—Fugitives from justice to be delivered up—Persons held to service having escaped, to be delivered up.

SEC. 3. Admission of new States—Power of Congress over territory and other property.

SEC. 4. Republican form of government guaranteed—Each State to be protected.

ARTICLE V

Constitution; how amended—Proviso.

ARTICLE VI

Certain debts, etc., declared valid—Supremacy of Constitution, treaties, and laws of the United States—Oath to support Constitution, by whom taken—No religious test.

ARTICLE VII

What ratification shall establish Constitution.

AMENDMENTS

- I. Religious establishment prohibited—Freedom of speech, of the press, and right to petition.
- II. Right to keep and bear arms.
- III. No soldier to be quartered in any house, unless, etc.
- IV. Right of search and seizure regulated.
- V. Provisions concerning prosecution, trial and punishment—Private property not to be taken for public use, without compensation.
- VI. Further provision respecting criminal prosecutions.
- VII. Right of trial by jury secured.

VIII. Excessive bail or fines and cruel punishments prohibited.

IX. Rule of construction of Constitution.

X. Same subject; rights of States.

XI. Same subject; judicial powers construed.

XII. Manner of choosing President and Vice President.

XIII. Slavery abolished.

XIV. Citizenship; representation—Public debt.

XV. Right of suffrage—By whom exercised.

XVI. Taxes on incomes.

XVII. Election of Senators—Filling of vacancies.

XVIII. Prohibition.

XIX. Suffrage; not to be denied because of sex.

XX. Commencement of terms of President, Vice President and members of Congress; time of assembling of Congress.

XXI. Repeal of Prohibition.

XXII. No person to serve as President for more than two terms.

The Constitution of the United States of America

PREAMBLE.—WE THE PEOPLE of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquillity, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

ARTICLE I

Section 1

Legislative powers vested in Congress.—All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section 2

Composition of the House of Representatives.—1. The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

Qualifications of Representatives.—2. No Person shall be a Representative who shall not have attained to the Age of twenty-five Years, and been seven Years a Citizen

of the United States, and who shall not, when elected, be an Inhabitant of that State in which he shall be chosen.

Apportionment of Representatives and direct taxes—census.*—3. [Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other persons.] The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct. The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at Least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to chuse three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New York six, New Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North Carolina five, South Carolina five, and Georgia three.

Filling of vacancies in representation.—4. When vacancies happen in the Representation from any State, the Executive

* The clause included in brackets is amended by the fourteenth amendment, second section.

Authority thereof shall issue Writs of Election to fill such Vacancies.

Selection of officers; power of impeachment.—5. The House of Representatives shall chuse their Speaker and other Officers; and shall have the sole Power of Impeachment.

Section 3*

The Senate.—[1. The Senate of the United States shall be composed of two Senators from each State, chosen by the Legislature thereof, for six Years; and each Senator shall have one Vote.]

Classification of Senators; filling of vacancies.—2. Immediately after they shall be assembled in Consequence of the first Election, they shall be divided as equally as may be into three Classes. The Seats of the Senators of the first Class shall be vacated at the expiration of the second Year, of the second Class at the Expiration of the fourth Year, and of the third Class at the Expiration of the sixth Year, so that one-third may be chosen every second Year; and if Vacancies happen by Resignation, or otherwise, during the Recess of the Legislature of any State, the Executive thereof may make temporary Appointments [until the next Meeting of the Legislature, which shall then fill such Vacancies].

Qualification of Senators.—3. No Person shall be a Senator who shall not have attained to the Age of thirty Years, and been nine Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State for which he shall be chosen.

Vice President to be President of Senate.—4. The Vice President of the United States shall be President of the Senate, but shall have no Vote, unless they be equally divided.

Selection of Senate officers; President pro tempore.—5. The Senate shall chuse their other Officers, and also a President pro tempore, in the absence of the Vice-President, or when he shall exercise the Office of President of the United States.

Senate to try Impeachments.—6. The Senate shall have the sole Power to try all Impeachments. When sitting for that Purpose, they shall be on Oath or Affirmation. When the President of the United States is tried, the Chief Justice shall preside: And no Person shall be convicted without the Concurrence of two thirds of the Members present.

Judgment in cases of impeachment.—7. Judgment in Cases of Impeachment shall not extend further than to removal from Office, and disqualification to hold and en-

joy any Office of honor, Trust, or Profit under the United States: but the Party convicted shall nevertheless be liable and subject to Indictment, Trial, Judgment and Punishment, according to Law.

Section 4

Control of congressional elections.—1. The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations, except as to the Places of choosing Senators.

Time for assembling of Congress.—2. The Congress shall assemble at least once in every Year, and such Meeting shall be on the first Monday in December, unless they shall by Law appoint a different Day.

Section 5

Each house to be the judge of the election and qualifications of its members; regulations as to quorum.—1. Each House shall be the Judge of the Elections, Returns and Qualifications of its own Members, and a Majority of each shall constitute a Quorum to do Business; but a smaller Number may adjourn from day to day, and may be authorized to compel the Attendance of absent Members, in such Manner, and under such Penalties as each House may provide.

Each house to determine its own rules.—2. Each House may determine the Rules of its Proceedings, punish its Members for disorderly Behavior, and, with the Concurrence of two thirds, expel a Member.

Journals and yeas and nays.—3. Each House shall keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy; and the Yeas and Nays of the Members of either House on any question shall, at the Desire of one fifth of those Present, be entered on the Journal.

Adjournment.—4. Neither House, during the Session of Congress shall, without the Consent of the other, adjourn for more than three days, nor to any other Place than that in which the two Houses shall be sitting.

Section 6

Compensation and privileges of Members of Congress.—1. The Senators and Representatives shall receive a Compensation for their Services, to be ascertained by Law, and paid out of the Treasury of the United States. They shall in all Cases, except Treason, Felony and Breach of the

* The first paragraph of section three, of article I of the Constitution of the United States, and so much of paragraph two of the same section as relates to filling vacancies, are amended by the seventeenth amendment to the Constitution.

† Amended by article XX, section 2, of the amendments to the Constitution.

Peace, be privileged from Arrest during their Attendance at the Session of their respective Houses, and in going to and returning from the same; and for any Speech or Debate in either House, they shall not be questioned in any other Place.

Incompatible offices; exclusions.—2. No Senator or Representative shall, during the Time for which he was elected, be appointed to any civil Office under the Authority of the United States, which shall have been created, or the Emoluments whereof shall have been increased during such time; and no Person holding any Office under the United States, shall be a Member of either House during his Continuance in Office.

Section 7

Revenue bills to originate in House.—1. All Bills for raising Revenue shall originate in the House of Representatives; but the Senate may propose or concur with Amendments as on other Bills.

Manner of passing bills; veto power of President.—2. Every Bill which shall have passed the House of Representatives and the Senate, shall, before it becomes a Law, be presented to the President of the United States; If he approve he shall sign it, but if not he shall return it, with his Objections to that House in which it shall have originated, who shall enter the Objections at large on their Journal, and proceed to reconsider it. If after such Reconsideration two thirds of that House shall agree to pass the Bill, it shall be sent, together with the Objections, to the other House, by which it shall likewise be reconsidered, and if approved by two thirds of that House, it shall become a Law. But in all such Cases the Votes of both Houses shall be determined by Yeas and Nays, and the Names of the Persons voting for and against the Bill shall be entered on the Journal of each House respectively. If any Bill shall not be returned by the President within ten Days (Sundays excepted) after it shall have been presented to him, the Same shall be a Law, in like Manner as if he had signed it, unless the Congress by their Adjournment prevent its Return, in which Case it shall not be a Law.

Concurrent orders or resolutions, to be passed by President.—3. Every Order, Resolution, or Vote to which the Concurrence of the Senate and House of Representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States; and before the Same shall take Effect, shall be approved by him, or being disapproved by him, shall be repassed by two thirds of the Senate and House of Representatives, according to the Rules and Limitations prescribed in the Case of a Bill.

Section 8

General powers of Congress.*

The Congress shall have Power.—1. To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States.

Borrowing of money.—2. To borrow money on the credit of the United States.

Regulation of commerce.—3. To regulate Commerce with foreign Nations, and among the several States, and with the Indian tribes.

Naturalization and bankruptcy.—4. To establish a uniform Rule of Naturalization, and uniform Laws on the subject of Bankruptcies throughout the United States.

Money, weights and measures.—5. To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures.

Counterfeiting.—6. To provide for the Punishment of counterfeiting the Securities and current Coin of the United States.

Post offices.—7. To establish Post Offices and post Roads.

Patents and copyrights.—8. To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.

Inferior courts.—9. To constitute Tribunals inferior to the supreme Court.

Piracies and felonies.—10. To define and punish Piracies and Felonies committed on the high Seas, and Offenses against the Law of Nations.

War; marque and reprisal.—11. To declare War, grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water.

Armies.—12. To raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than two Years.

Navy.—13. To provide and maintain a Navy.

Land and naval forces.—14. To make Rules for the Government and Regulation of the land and naval Forces.

Calling out militia.—15. To provide for calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repel Invasions.

Organizing, arming and disciplining militia.—16. To provide for organizing, arming, and disciplining the Militia, and for governing such Part of them as may be

* By article XVI of the amendments to the Constitution, Congress is given the power to lay and collect taxes on incomes.

employed in the Service of the United States, reserving to the States, respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress.

Exclusive legislation over District of Columbia.—17. To exercise exclusive Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of particular States, and the acceptance of Congress, become the Seat of the Government of the United States, and to exercise like Authority over all Places purchased by the Consent of the Legislature of the State in which the Same shall be, for the Erection of Forts, Magazines, Arsenals, dock-Yards, and other needful Buildings;—and

To enact laws necessary to enforce Constitution.—18. To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.

Section 9

Migration or Importation of certain persons not to be prohibited before 1808.—1. The Migration or Importation of such Persons as any of the States now existing shall think proper to admit, shall not be prohibited by the Congress prior to the Year one thousand eight hundred and eight, but a tax or duty may be imposed on such Importation, not exceeding ten dollars for each Person.

Writ of habeas corpus not to be suspended; exception.—2. The privilege of the Writ of Habeas Corpus shall not be suspended, unless when in Cases of Rebellion or Invasion the public Safety may require it.

Bills of attainder and ex post facto laws prohibited.—3. No Bill of Attainder or ex post facto Law shall be passed.

Capitation and other direct taxes.—4. No Capitation, or other direct, Tax shall be laid, unless in Proportion to the Census or Enumeration herein before directed to be taken.*

Exports not to be taxed.—5. No Tax or Duty shall be laid on Articles exported from any State.

No preference to be given to ports of any State; interstate shipping.—6. No Preference shall be given by any Regulation of Commerce or Revenue to the Ports of one State over those of another: nor shall Vessels bound to, or from, one State, be obliged to enter, clear, or pay Duties in another.

Money, how drawn from treasury; finan-

cial statements to be published.—7. No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law; and a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time.

Titles of nobility not to be granted; acceptance by government officers of favors from foreign powers.—8. No Title of Nobility shall be granted by the United States: And no Person holding any Office of Profit or Trust under them, shall, without the Consent of the Congress, accept of any present, Emolument, Office, or Title, of any kind whatever, from any King, Prince, or foreign State.

Section 10

Limitations of the powers of the several States.—1. No State shall enter into any Treaty, Alliance, or Confederation; grant Letters of Marque and Reprisal; coin Money; emit Bills of Credit; make any Thing but gold and silver Coin a Tender in Payment of Debts; pass any Bill of Attainder, ex post facto Law, or Law impairing the Obligation of Contracts or grant any Title of Nobility.

State imposts and duties.—2. No State shall, without the Consent of the Congress, lay any Imposts or Duties on Imports or Exports, except what may be absolutely necessary for executing its inspection Laws: and the net Produce of all Duties and Imposts, laid by any State on Imports or Exports, shall be for the Use of the Treasury of the United States; and all such Laws shall be subject to the Revision and Control of the Congress.

Further restrictions on powers of States.—3. No State shall, without the consent of Congress, lay any duty of Tonnage, keep Troops, or Ships of War in time of Peace, enter into any Agreement or Compact with another State, or with a foreign Power, or engage in War, unless actually invaded, or in such imminent Danger as will not admit of delay.

ARTICLE II

Section 1.

The President; the executive power.—1. The executive Power shall be vested in a President of the United States of America. He shall hold his Office during the Term of four Years, and, together with the Vice-President, chosen for the same Term, be elected, as follows:

Appointment and qualifications of presidential electors.—2. Each State shall appoint, in such Manner as the Legislature thereof may direct, a Number of Electors, equal to the whole Number of Senators and

* See sixteenth amendment.

Representatives to which the State may be entitled in the Congress: but no Senator or Representative, or Person holding an Office of Trust or Profit under the United States, shall be appointed an Elector.

Original method of electing the President and Vice-President.*—[The Electors shall meet in their respective States, and vote by Ballot for two persons, of whom one at least shall not be an Inhabitant of the same State with themselves. And they shall make a List of all the Persons voted for, and of the Number of Votes for each; which List they shall sign and certify, and transmit sealed to the Seat of the Government of the United States, directed to the President of the Senate. The President of the Senate shall, in the Presence of the Senate and House of Representatives, open all the Certificates, and the Votes shall then be counted. The Person having the greatest Number of Votes shall be the President, if such Number be a Majority of the whole Number of Electors appointed; and if there be more than one who have such Majority, and have an equal Number of Votes, then the House of Representatives shall immediately chuse by Ballot one of them for President; and if no Person have a Majority, then from the five highest on the list the said House shall in like Manner chuse the President. But in chusing the President, the Votes shall be taken by States, the Representation from each State having one Vote; A quorum for this Purpose shall consist of a Member or Members from two-thirds of the States, and a Majority of all the States shall be necessary to a Choice. In every Case, after the Choice of the President, the Person having the greatest Number of Votes of the Electors shall be the Vice-President. But if there should remain two or more who have equal Votes, the Senate should chuse from them by Ballot the Vice-President.]

Congress may determine time of choosing electors and day for casting their votes.—3. The Congress may determine the Time of chusing the Electors, and the Day on which they shall give their Votes; which Day shall be the same throughout the United States.

Qualifications for the office of President.†—4. No person except a natural born Citizen, or a Citizen of the United States, at the time of the Adoption of this Constitution, shall be eligible to the Office of President; neither shall any Person be eligible to that Office who shall not have attained to the Age of thirty-five Years, and been fourteen Years a Resident within the United States.

Filling vacancy in the office of Presi-

dent.‡—5. In Case of the Removal of the President from Office, or of his Death, Resignation, or Inability to discharge the Powers and Duties of the said Office, the same shall devolve on the Vice-President, and the Congress may by Law provide for the Case of Removal, Death, Resignation or Inability, both of the President and Vice-President, declaring what Officer shall then act as President, and such Officer shall act accordingly, until the Disability be removed, or a President shall be elected.

Compensation of the President.—6. The President shall, at stated Times, receive for his Services, a Compensation, which shall neither be encreased nor diminished during the Period for which he shall have been elected, and he shall not receive within that Period any other Emolument from the United States, or any of them.

Oath to be taken by the President.—7. Before he enter on the Execution of his Office, he shall take the following Oath or Affirmation:—"I do solemnly swear (or affirm) that I will faithfully execute the Office of President of the United States, and will to the best of my Ability, preserve, protect and defend the Constitution of the United States."

Section 2

The President to be commander-in-chief of army and navy and head of executive departments; may grant reprieves and pardons.—1. The President shall be Commander-in-Chief of the Army and Navy of the United States, and of the Militia of the several States, when called into the actual Service of the United States; he may require the Opinion, in writing, of the principal Officer in each of the executive Departments, upon any subject relating to the Duties of their respective Offices, and he shall have Power to grant Reprieves and Pardons for Offenses against the United States, except in Cases of Impeachment.

President may, with concurrence of Senate, make treaties, appoint ambassadors, etc.; appointment of inferior officers, authority of Congress over.—2. He shall have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two-thirds of the Senators present concur; and he shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls, Judges of the supreme Court, and all other Officers of the United States, whose Appointments are not herein otherwise provided for, and which shall be established by Law; but the Congress may by Law vest the Appointment of such inferior Officers, as they think proper, in the President alone, in

* This clause has been superseded by the twelfth amendment.

† For qualifications of the Vice President, see article XII of the amendments.

‡ Amended by article XX, sections 3, and 4, of the amendments to the Constitution.

the Courts of Law, or in the Heads of Departments.

President may fill vacancies in office during recess of Senate.—3. The President shall have Power to fill up all Vacancies that may happen during the Recess of the Senate, by granting Commissions which shall expire at the End of their next Session.

Section 3

President to give advice to Congress; may convene or adjourn it on certain occasions; to receive ambassadors, etc.; have laws executed and commission all officers.—He shall from time to time give to the Congress Information of the State of the Union, and recommend to their Consideration such Measures as he shall judge necessary and expedient; he may, on extraordinary Occasions, convene both Houses, or either of them, and in Case of Disagreement between them, with Respect to the Time of Adjournment, he may adjourn them to such Time as he shall think proper; he shall receive Ambassadors and other public Ministers; he shall take Care that the Laws be faithfully executed, and shall Commission all the Officers of the United States.

Section 4

All civil officers removable by impeachment.—1. The President, Vice-President and all civil Officers of the United States, shall be removed from Office on Impeachment for, and Conviction of, Treason, Bribery, or other high Crimes and Misdemeanors.

ARTICLE III

Section 1

Judicial powers; how vested; term of office and compensation of judges.—The judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish. The Judges, both of the supreme and inferior Courts, shall hold their Offices during good Behavior, and shall, at stated Times, receive for their Services a Compensation which shall not be diminished during their Continuance in Office.

Section 2

Jurisdiction of Federal courts.*—1. The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority;—to all Cases affecting Ambassadors, other public Ministers and Consuls;—to all Cases of Admiralty and maritime Jurisdiction;—to Controversies to which the United States shall be a Party;—to Controversies between two or more States;—between a State and

Citizens of another State;—between Citizens of different States;—between Citizens of the same State claiming Lands under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

Original and appellate jurisdiction of Supreme Court.—2. In all Cases affecting Ambassadors, other public Ministers and Consuls, and those in which a State shall be Party, the supreme Court shall have original Jurisdiction. In all the other Cases before mentioned, the supreme Court shall have appellate Jurisdiction, both as to Law and Fact, with such Exceptions, and under such Regulations as the Congress shall make.

Trial of all crimes, except impeachment, to be by jury.—3. The trial of all Crimes, except in Cases of Impeachment, shall be by Jury; and such Trial shall be held in the State where the said Crimes shall have been committed; but when not committed within any State, the trial shall be at such Place or Places as the Congress may by Law have directed.

Section 3

Treason defined; conviction of.—1. Treason against the United States, shall consist only in levying War against them, or, in adhering to their Enemies, giving them Aid and Comfort. No Person shall be convicted of Treason unless on the Testimony of two Witnesses to the same overt Act, or on Confession in open Court.

Congress to declare punishment for treason; proviso.—2. The Congress shall have power to declare the Punishment of Treason, but no Attainder of Treason shall work Corruption of Blood, or Forfeiture except during the Life of the Person attainted.

ARTICLE IV

Section 1

Each State to give full faith and credit to the public acts and records of other States.—Full Faith and Credit shall be given in each State to the public Acts, Records, and judicial Proceedings of every other State. And the Congress may by general Laws prescribe the Manner in which such Acts, Records and Proceedings shall be proved, and the Effect thereof.

Section 2

Privileges of citizens.—1. The Citizens of each State shall be entitled to all Privileges and Immunities of Citizens in the several States.

Extradition between the several States.—2. A Person charged in any State with Treason, Felony, or other Crime, who shall flee from Justice, and be found in another State, shall on demand of the executive

* This section is abridged by article XI of the amendments.

Authority of the State from which he fled, be delivered up, to be removed to the State having Jurisdiction of the Crime.

Persons held to labor or service in one State, fleeing to another, to be returned.*

—3. No Person held to Service or Labour in one State, under the Laws thereof, escaping into another, shall, in Consequence of any Law or Regulation therein, be discharged from such Service or Labour, but shall be delivered up on Claim of the Party to whom such Service or Labour may be due.

Section 3

New States.—1. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the Jurisdiction of any other State; nor any State be formed by the Junction of two or more States, or parts of States, without the Consent of the Legislatures of the States concerned as well as of the Congress.

Regulations concerning territory.—2. The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States; and nothing in this Constitution shall be so construed as to Prejudice any Claims or the United States, or of any particular State.

Section 4

Republican form of government and protection guaranteed the several States.—The United States shall guarantee to every State in this Union a Republican Form of Government, and shall protect each of them against Invasion; and on Application of the Legislature, or of the Executive (when the Legislature cannot be convened) against domestic Violence.

ARTICLE V

Ways in which the Constitution can be amended.—The Congress, whenever two-thirds of both Houses shall deem it necessary, shall propose Amendments to this Constitution, or, on the Application of the Legislatures of two-thirds of the several States, shall call a Convention for proposing Amendments, which, in either Case, shall be valid to all Intents and Purposes, as part of this Constitution, when ratified by the Legislatures of three-fourths of the several States, or by Conventions in three-fourths thereof, as by the one or the other Mode of Ratification may be proposed by the Congress; Provided that no Amendment which may be made prior to the Year One thousand eight hundred and eight shall in any Manner affect the first and fourth Clauses in the Ninth Section of the first Article; and that no State, without its Consent, shall be deprived of its equal Suffrage in the Senate.

ARTICLE VI

Debts contracted under the confederation secured.—1. All Debts contracted and Engagements entered into, before the Adoption of this Constitution, shall be as valid against the United States under this Constitution, as under the Confederation.

Constitution, laws and treaties of the United States to be supreme.—2. This Constitution, and the Laws of the United States shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.

Who shall take constitutional oath; no religious test as to official qualification.—3. The Senators and Representatives before mentioned, and the Members of the several State Legislatures, and all executive and judicial Officers, both of the United States and of the several States, shall be bound by Oath or Affirmation, to support this Constitution; but no religious Test shall ever be required as a Qualification to any Office or public Trust under the United States.

ARTICLE VII

Constitution to be considered adopted when ratified by nine States.—The Ratification of the Conventions of nine States shall be sufficient for the Establishment of this Constitution between the States so ratifying the Same.

Done in Convention by the Unanimous Consent of the States present the Seventeenth Day of September in the Year of our Lord one thousand seven hundred and Eighty seven and of the Independence of the United States of America the Twelfth, in Witness whereof We have hereunto subscribed our Names.

Go. WASHINGTON

President and Deputy from Virginia

NEW HAMPSHIRE

John Langdon Nicholas Gilman

MASSACHUSETTS

Nathaniel Gorham Rufus King

CONNECTICUT

Wm Saml Johnson Roger Sherman

NEW YORK

Alexander Hamilton

NEW JERSEY

Will: Livingston Wm. Paterson
David Brearley Jonas Dayton

PENNSYLVANIA

B. Franklin Thomas Mifflin
Robt. Morris Geo. Clymer
Thos. Fitzsimons Jared Ingersoll
James Wilson Gouv Morris

DELAWARE

Geo. Read Gunning Bedford Jun
John Dickinson Richard Bassett
Jaco: Broom

MARYLAND

James McHenry Dan: of St Thos Jenifer
Dani Carroll

* See thirteenth amendment

VIRGINIA

John Blair—

James Madison Jr.

NORTH CAROLINA

Wm Blount
Hu Williamsen

Richd Dobbs Spaight,

SOUTH CAROLINA

J. Rutledge
Charles PinckneyCharles Cotesworth Pinckney.
Pierce Butler

GEORGIA

William Few
Attest: William Jackson, Secretary.

Abr Baldwin

AMENDMENTS TO THE CONSTITUTION OF THE UNITED STATES

(Amendments I to X inclusive, popularly known as the Bill of Rights, were proposed and sent to the states by the first session of the First Congress. They became effective Dec. 15, 1791.)

ARTICLE I

Freedom of religion, speech, of the press, and right of petition.—Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

ARTICLE II

Right of people to bear arms not to be infringed.—A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

ARTICLE III

Quartering of troops.—No Soldier shall, in time of peace be quartered in any house, without the consent of the Owner, nor in time of war, but in a manner to be prescribed by law.

ARTICLE IV

Persons and houses to be secure from unreasonable searches and seizures.—The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

ARTICLE V

Trials for crimes; just compensation for private property taken for public use.—No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

ARTICLE VI

Civil rights in trials for crimes enumerated.—In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence.

ARTICLE VII

Civil rights in civil suits.—In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.

ARTICLE VIII

Excessive bail, fines and punishments prohibited.—Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

ARTICLE IX

Reserved rights of people.—The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

ARTICLE X

Powers not delegated, reserved to states and people respectively.—The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

ARTICLE XI

(The proposed amendment was sent to the states Mar. 5, 1794, by the Third Congress. It became effective Jan. 8, 1798.)

Judicial power of United States not to extend to suits against a State.—The Judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by Citizens of another State, or by Citizens or Subjects of any Foreign State.

ARTICLE XII

(The proposed amendment was sent to the states Dec. 12, 1803, by the Eighth Congress. It became effective Sept. 25, 1804.)

Present mode of electing President and Vice-President by electors.*—The Electors shall meet in their respective states and vote by ballot for President and Vice-President, one of whom, at least, shall not be an inhabitant of the same state with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President, and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each, which lists they shall sign and certify, and transmit sealed to the seat of the government of the United States, directed to the President of the Senate;—The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates and the votes shall then be counted;—The person having the greatest number of votes for President, shall be the President, if such number be a majority of the whole number of electors appointed; and if no person have such majority, then from the persons having the highest numbers not exceeding three on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But in choosing the President, the votes shall be taken by states, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the states, and a majority of all the states shall be necessary to a choice. And if the House of Representatives shall not choose a President whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President. The person having the greatest number of votes as Vice-President, shall be the Vice-President, if such number be a majority of the whole number of electors appointed, and if no person have a majority, then from the two highest numbers on the list, the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.

ARTICLE XIII

(The proposed amendment was sent to the states Feb. 1, 1865, by the Thirty-ninth Congress. It became effective Dec. 18, 1865.)

Section 1

Slavery prohibited.—Neither slavery nor

involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

Section 2

Congress given power to enforce this article.—Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XIV

(The proposed amendment was sent to the states June 16, 1866, by the Thirty-ninth Congress. It became effective July 28, 1868.)

Section 1

Citizenship defined; privileges of citizens.—All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Section 2

Apportionment of Representatives.—Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice-President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Section 3

Disqualification for office; removal of disability.—No person shall be a Senator or Representative in Congress, or elector of President and Vice-President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall

* Amended by Article XX, Sections 3 and 4, of the amendment to the Constitution.

have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof. But Congress may by a vote of two-thirds of each House, remove such disability.

Section 4

Public debt not to be questioned; payment of debts and claims incurred in aid of rebellion forbidden.—The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

Section 5

Congress given power to enforce this article.—The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

ARTICLE XV

(The proposed amendment was sent to the states Feb. 27, 1869, by the Fortieth Congress. It became effective Mar. 30, 1870.)

Section 1

Right of certain citizens to vote established.—The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State, on account of race, color, or previous condition of servitude.

Section 2

Congress given power to enforce this article.—The Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XVI

(The proposed amendment was sent to the states July 12, 1909, by the Sixty-first Congress. It became effective Feb. 26, 1913.)

Taxes on income; Congress given power to lay and collect.—The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration.

ARTICLE XVII

(The proposed amendment was sent to the states May 16, 1912, by the Sixty-second Congress. It became effective May 31, 1913.)

Election of United States Senators; filling of vacancies; qualifications of electors.

1. The Senate of the United States shall be composed of two Senators from each State, elected by the people thereof, for

six years; and each Senator shall have one vote. The electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State legislatures.

2. When vacancies happen in the representation of any State in the Senate, the executive authority of such State shall issue writs of election to fill such vacancies: Provided, that the legislature of any State may empower the executive thereof to make temporary appointment until the people fill the vacancies by election as the legislature may direct.

3. This amendment shall not be so construed as to affect the election or term of any Senator chosen before it becomes valid as part of the Constitution.

ARTICLE XVIII*

(The proposed amendment was sent to the states Dec. 18, 1917, by the Sixty-fifth Congress. It was approved by three-quarters of the states by Jan. 16, 1919, and became effective Jan. 16, 1920.)

Manufacture, sale or transportation of intoxicating liquors, for beverage purposes, prohibited.—1. After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited.

Congress and the several States given concurrent power to pass appropriate legislation to enforce this article.—2. The Congress and the several States shall have concurrent power to enforce this article by appropriate legislation.

Provisions of article to become operative, when adopted by three-fourths of the States.—3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by the Congress.

ARTICLE XIX

(The proposed amendment was sent to the states June 4, 1919, by the Sixty-sixth Congress. It became effective Aug. 26, 1920.)

The right of citizens to vote shall not be denied because of sex.—The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex.

Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XX

(The proposed amendment, sometimes called the "Lame Duck Amendment," was sent to the states Mar. 3, 1932, by the Seventy-second Congress. It became effective Feb. 6, 1933; but, in accordance with Section 5, Sections 1 and 2 did not go into effect until Oct. 15, 1933.)

* Repealed by Article XXI of the amendments to the Constitution.

Section 1

Terms of President, Vice-President, Senators and Representatives.—The terms of the President and Vice-President shall end at noon on the 20th day of January, and the terms of Senators and Representatives at noon on the 3d day of January, of the years in which such terms would have ended if this article had not been ratified; and the terms of their successors shall then begin.

Section 2

Time of assembling Congress.—The Congress shall assemble at least once in every year, and such meeting shall begin at noon on the 3d day of January, unless they shall by law appoint a different day.

Section 3

Filling vacancy in office of President.—If, at the time fixed for the beginning of the term of the President, the President elect shall have died, the Vice-President elect shall become President. If a President shall not have been chosen before the time fixed for the beginning of his term, or if the President elect shall have failed to qualify, then the Vice-President elect shall act as President until a President shall have qualified; and the Congress may by law provide for the case wherein neither a President elect nor a Vice-President elect shall have qualified, declaring who shall then act as President, or the manner in which one who is to act shall be selected, and such person shall act accordingly until a President or Vice-President shall have qualified.

Section 4

Power of Congress in Presidential succession.—The Congress may by law provide for the case of the death of any of the persons from whom the House of Representatives may choose a President whenever the right of choice shall have devolved upon them, and for the case of the death of any of the persons from whom the Senate may choose a Vice-President whenever the right of choice shall have devolved upon them.

Section 5

Time of taking effect.—Sections 1 and 2 shall take effect on the 15th day of October following the ratification of this article.

Section 6

Ratification.—This article shall be operative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the

several States within seven years from the date of its submission.

ARTICLE XXI

(The proposed amendment was sent to the states Feb. 20, 1933, by the Seventy-second Congress. It became effective Dec. 5, 1933.)

Section 1

Repeal of Prohibition Amendment.—The eighteenth article of amendment to the Constitution of the United States is hereby repealed.

Section 2

Transportation of intoxicating liquors.—The transportation or importation into any State, Territory, or possession of the United States for delivery or use therein of intoxicating liquors, in violation of the laws thereof, is hereby prohibited.

Section 3

Ratification.—This article shall be operative unless it shall have been ratified as an amendment to the Constitution by conventions in the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by the Congress.

ARTICLE XXII

(The proposed amendment was sent to the states Mar. 21, 1947, by the Eightieth Congress. It became effective Feb. 26, 1961.)

Section 1

Limit to number of terms a President may serve.—No person shall be elected to the office of the President more than twice, and no person who has held the office of President, or acted as President, for more than two years of a term to which some other person was elected President shall be elected to the office of the President more than once. But this Article shall not apply to any person holding the office of President when this Article was proposed by the Congress, and shall not prevent any person who may be holding the office of President, or acting as President, during the term within which this Article becomes operative from holding the office of President or acting as President during the remainder of such term.

Section 2

Ratification.—This article shall be operative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the several States within seven years from the date of its submission to the States by the Congress.

Lincoln's Gettysburg Address

The Battle of Gettysburg, one of the most noted battles of the Civil War, was fought on July 1, 2, and 3, 1863. On November 19, 1863, the field was dedicated as a national cemetery by President Lincoln in a two-minute speech that was to become immortal. At the time of its de-

livery the speech was relegated to the inside pages of the papers, while a two-hour address by Edward Everett, the leading orator of the time, caught the headlines.

The following is the text of the address revised by President Lincoln from his own notes:

FOURSCORE and seven years ago our fathers brought forth on this continent a new nation conceived in liberty and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field as a final resting-place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. But, in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead, who struggled here have consecrated it far above our poor power to add or detract. The world will little note nor long remember what we say here, but it can never forget what they did here. It is for us the living rather to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain, that this nation under God shall have a new birth of freedom, and that government of the people, by the people, for the people shall not perish from the earth.

The Monroe Doctrine

The Monroe Doctrine was announced in President James Monroe's message to Congress, during his second term on December 2, 1823 in part as follows:

"In the discussions to which this interest has given rise, and in the arrangements by which they may terminate, the occasion has been deemed proper for asserting as a principle in which rights and interests of the United States are involved, that the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European power. . . . We owe it, therefore, to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with the governments who have declared their independence and maintain it, and whose independence we have, on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them or controlling in any other manner their destiny by any European power in any other light than as the manifestation of an unfriendly disposition toward the United States."

Minority Presidents

Thirteen candidates have become President of the U. S. with a popular vote less than 50 per cent of the total vote cast. It should be noted, however, that in elections before 1872, presidential electors were not chosen by popular vote in all states. Adams' election in 1824 was by the House of Representatives, which chose him over Jackson, who had a plurality of both electoral and popular votes, but not a majority in the electoral college.

Besides Jackson in 1824, only two other candidates receiving the largest popular vote have failed to gain a majority in the electoral college—Samuel J. Tilden (D) in 1876 and Grover Cleveland (D) in 1888.

The "minority" Presidents follow:

Year	President	Electo- toral	Popular vote
		Pct.	Pct.
1824	John Q. Adams.....	31.8	29.8
1844	James K. Polk (D).....	61.8	49.3
1848	Zachary Taylor (W).....	56.2	47.3
1856	James A. Buchanan (D).....	58.7	45.3
1860	Abraham Lincoln (R).....	59.4	39.9
1876	Rutherford B. Hayes (R).....	50.1	47.9
1880	James A. Garfield (R).....	57.9	48.3
1884	Grover Cleveland (D).....	54.6	48.8
1888	Benjamin Harrison (R).....	58.1	47.8
1892	Grover Cleveland (D).....	62.4	46.0
1912	Woodrow Wilson (D).....	81.9	41.8
1916	Woodrow Wilson (D).....	52.1	49.3
1948	Harry S. Truman (D).....	57.1	49.5

The Mayflower Compact

On September 6, 1620, the *Mayflower*, a sailing vessel of about 180 tons, started her memorable voyage from Plymouth, England with 100 or 102* pilgrims aboard, bound for Virginia to establish a private permanent colony in North America. Arriving at Provincetown, Mass., on November 11 (November 21, new style calendar),

forty-one of the passengers signed the famous "Mayflower Compact" as the boat lay at anchor in that Cape Cod harbor. A small detail of the pilgrims, led by William Bradford, assigned to select a place for permanent settlement landed at what is now Plymouth, Mass., on December 21, N.S.

The text of the compact follows:

IN THE NAME OF GOD, Amen. We, whose names are underwritten, the Loyal Subjects of our dread Sovereign Lord, King James, by the Grace of God, of Great Britain, France and Ireland, King, Defender of the Faith, &

Having undertaken for the Glory of God, and Advancement of the Christian Faith, and the Honour of our King and Country, a voyage to plant the first colony in the northern Parts of Virginia; do by these Presents, solemnly and mutually in the Presence of God and one of another, covenant and combine ourselves together into a civil Body Politick, for our better Ordering and Preservation, and Furtherance of the Ends aforesaid; And by Virtue hereof to enact, constitute, and frame, such just and equal Laws, Ordinances, Acts, Constitutions and Offices, from time to time, as shall be thought most meet and convenient for the General good of the Colony; unto which we promise all due Submission and Obedience.

In WITNESS whereof we have hereunto subscribed our names at Cape Cod the eleventh of November, in the Reign of our Sovereign Lord, King James of England, France and Ireland, the eighteenth, and of Scotland the fifty-fourth. Anno Domini, 1620

John Carver
Digery Priest
William Brewster
Edmund Margesson
John Alden
George Soule
James Chilton
Francis Cooke
Joses Fletcher
John Ridgate
Christopher Martin

William Mullins
Thomas English
John Howland
Stephen Hopkins
Edward Winslow
Gilbert Winslow
Miles Standish
Richard Bitteridge
Francis Eaton
John Tilly
John Billington

Thomas Tinker
Samuel Fuller
Richard Clark
John Allerton
Richard Warren
Edward Lester
William Bradford
Thomas Williams
Isaac Allerton
Peter Brown
John Turner

Edward Tilly
John Craxton
Thomas Rogers
John Goodman
Edward Fuller
Richard Gardiner
William White
Edward Doten

* Historians differ as to whether 100, 101, or 102 passengers were aboard

The Early Congresses

At the urging of Massachusetts and Virginia, the First Continental Congress met in Philadelphia on September 5, 1774, and was attended by representatives of all the colonies except Georgia. Patrick Henry of Virginia declared: "The distinctions between Pennsylvanians, New Yorkers and New Englanders are no more. I am not a Virginian but an American." This Congress, which adjourned October 26, 1774, passed intercolonial resolutions calling for extensive boycott by the colonies against British trade.

The following year, most of the delegates from the colonies were chosen by popular election to attend the Second Continental Congress, which assembled in Philadelphia on May 10. As war had already begun between the colonies and England, the chief problems before the Congress were the procuring of military supplies, the establishment of an army and proper defenses, the issuing of continental bills of credit, etc. On June 15, 1775, George Washington

was elected to command the Continental army. Congress adjourned Dec. 12, 1776.

Other Continental Congresses were held in Baltimore (1776-77), Philadelphia (1777), Lancaster, Pa. (1777), York, Pa. (1777-78) and Philadelphia (1778-81).

In 1781, the Articles of Confederation, although establishing a league of the thirteen states rather than a strong central government, provided for the continuance of Congress. Known thereafter as the Congress of the Confederation, it held sessions in Philadelphia (1781-83), Princeton, N. J. (1783), Annapolis, Md. (1783-84) and Trenton, N. J. (1784). Five sessions were held in New York City between the years 1785 and 1789.

The Congress of the United States, established by the ratification of the Constitution, held its first meeting on Mar. 4, 1789, in N. Y. C. Several sessions of Congress were held in Philadelphia, and the first meeting in Washington D. C., was on Nov. 17, 1800.

Presidents of the Continental Congresses

Name	Elected	Born	Died
Peyton Randolph, Va.	Sept. 5, 1774	c.1721	1775
Henry Middleton, S. C.	Oct. 22, 1774	1717	1784
Peyton Randolph, Va.	May 10, 1775	c.1721	1775
John Hancock, Mass.	May 24, 1775	1737	1793
Henry Laurens, S. C.	Nov. 1, 1777	1724	1792
John Jay, N. Y.	Dec. 10, 1778	1745	1829
Samuel Huntington, Conn.	Sept. 28, 1779	1731	1796
Thomas McKean, Del.	July 10, 1781	1734	1817
John Hanson, Md.	Nov. 5, 1781	1715	1783
Elias Boudinot, N. J.	Nov. 4, 1782	1740	1821
Thomas Mifflin, Pa.	Nov. 3, 1783	1744	1800
Richard Henry Lee, Va.	Nov. 30, 1784	1732	1794
John Hancock, Mass.*	Nov. 23, 1785	1737	1793
Nathaniel Gorham, Mass.	June 6, 1786	1738	1796
Arthur St. Clair, Pa.	Feb. 2, 1787	1734	1818
Cyrus Griffin, Va.	Jan. 22, 1788	1748	1810

* Resigned May 29, 1786, never having served, because of continued illness.

The Star-Spangled Banner

Francis Scott Key, 1814

O say, can you see, by the dawn's early light,
 What so proudly we hail'd at the twilight's last gleaming?
 Whose broad stripes and bright stars, thro' the perilous fight,
 O'er the ramparts we watch'd, were so gallantly streaming?
 And the rockets' red glare, the bombs bursting in air,
 Gave proof thro' the night that our flag was still there.
 O say, does that star-spangled banner yet wave
 O'er the land of the free and the home of the brave?

On the shore dimly seen thro' the mists of the deep,
 Where the foe's haughty host in dread silence reposes,
 What is that which the breeze, o'er the towering steep,
 As it fitfully blows, half conceals, half discloses?
 Now it catches the gleam of the morning's first beam,
 In full glory reflected, now shines on the stream:
 'T is the star-spangled banner: O, long may it wave
 O'er the land of the free and the home of the brave!

And where is that band who so vauntingly swore
 That the havoc of war and the battle's confusion,
 A home and a country should leave us no more?
 Their blood has wash'd out their foul footsteps' pollution.
 No refuge could save the hireling and slave
 From the terror of flight or the gloom of the grave:
 And the star-spangled banner in triumph doth wave
 O'er the land of the free and the home of the brave.

O thus be it ever when free-men shall stand
 Between their lov'd home and the war's desolation;
 Blest with vict'ry and peace, may the heav'n-rescued land
 Praise the Pow'r that hath made and preserv'd us a nation!
 Then conquer we must, when our cause it is just,
 And this be our motto: "In God is our trust!"
 And the star-spangled banner in triumph shall wave
 O'er the land of the free and the home of the brave!

ON SEPTEMBER 13, 1814, Francis Scott Key visited the British fleet in Chesapeake Bay to secure the release of Dr. William Beanes, who had been captured after the burning of Washington, D. C. The release was secured, but Key was detained on ship overnight during the shelling of Fort McHenry, one of the forts defending Baltimore. In the morning, he was so delighted to see the American flag still flying over the fort that he began a poem to commemorate the occasion. Entitled "The Star-Spangled Banner," the poem soon attained wide popularity as sung to the tune "Anacreon in Heaven." The origin of this tune is obscure, but it may have been written by John Stafford Smith, a British composer born in 1760. "The Star-Spangled Banner" was officially made the National Anthem by Congress in 1931, although already adopted as such by the Army and Navy.

History of the Flag

Source: *Encyclopaedia Britannica*.

THE FIRST OFFICIAL AMERICAN flag, the Continental or Grand Union flag, was displayed on Prospect Hill, Jan. 1, 1776, in the American lines besieging Boston. It had thirteen alternate red and white stripes, with the British Union Jack in the upper left corner.

On June 14, 1777, the Continental Congress adopted the design for a new flag, which actually was the Continental flag with the red cross of St. George and the white cross of St. Andrew replaced on the blue field by thirteen stars, one for each state. No rule was made as to the arrangement of the stars, and while they were usually shown in a circle, there were various other designs. It is uncertain when the new flag was first flown, but its first official announcement is believed to have been on Sept. 3, 1777.

The first public assertion that Betsy Ross made the first Stars and Stripes appeared in a paper read before the Historical Society of Pennsylvania on March 14, 1870, by William J. Canby, a grandson. However, Mr. Canby on later investigation found no official documents of any action by Congress on the flag before June 14, 1777. Betsy Ross' own story, according to her daughter, was that Washington, Robert Morris and George Ross, as representatives of Congress, visited her in Philadelphia in June, 1776, showing her a rough draft of the flag and asking her if she could make one. However, the only actual record of the manufacture of flags by Betsy Ross is a voucher in Harrisburg, Pa., for 14 pounds

and some shillings for flags for the Pennsylvania navy.

On Jan. 13, 1794, Congress voted to add two stars and two stripes to the flag in recognition of the admission of Vermont and Kentucky to the Union. By 1818, there were twenty states in the Union, and as it was obvious that the flag would soon become unwieldy, Congress voted April 18 to return to the original thirteen stripes and to indicate the admission of a new state simply by the addition of a star the following July 4. The last two stars were added July 4, 1912, for New Mexico and Arizona.

The first Confederate flag, adopted in 1861 by the Confederate convention in Montgomery, Ala., was called the Stars and Bars; but because of its similarity in colors to the American flag, there was much confusion in the Battle of Bull Run. To remedy this situation, Gen. G. T. Beauregard suggested a battle flag, which was used by the Southern armies throughout the war. The flag consisted of a red field on which was placed a blue cross of St. Andrew separated from the field by a white fillet and adorned with thirteen* white stars for the Confederate states. In May, 1863, at Richmond, an official flag was adopted by the Confederate Congress. This flag was white and twice as long as wide; the union, two-thirds the width of the flag, contained the battle flag designed for Gen. Beauregard. A broad transverse stripe of red was added Feb. 4, 1865, so that the flag might not be mistaken for a signal of truce.

* 11 states formally seceded, and unofficial groups in Kentucky and Missouri adopted ordinances of secession. On this basis, these two states were admitted to the Confederacy, although the official state governments remained in the Union.

Flag Etiquette

(Public Law 329—77th Congress)

JOINT RESOLUTION

To amend Public Law Numbered 623, approved June 22, 1942, entitled "Joint resolution to codify and emphasize existing rules and customs pertaining to the display and use of the flag of the United States of America."

Resolved by the Senate and House of Representatives of the United States of America in Congress Assembled, That Public Law Numbered 623, approved June 22, 1942, entitled "Joint resolution to codify and emphasize existing rules and customs pertaining to the display and use of the flag of the United States of America," be, and the same is hereby amended to read as follows:

That the following codification of existing rules and customs pertaining to the display and use of the flag of the United States of America be, and it is hereby established for the use of such civilians or civilian groups or organizations as may

not be required to conform with regulations promulgated by one or more executive departments of the Government of the United States.

Sec. 2. (a) It is the universal custom to display the flag only from sunrise to sunset on buildings and on stationary flag-staffs in the open. However, the flag may be displayed at night upon special occasions when it is desired to produce a patriotic effect.

(b) The flag should be hoisted briskly and lowered ceremoniously.

(c) The flag should not be displayed on days when the weather is inclement.

(d) The flag should be displayed on all days when the weather permits, especially on New Year's Day, January 1; Inauguration Day, January 20; Lincoln's Birthday, February 12; Washington's Birthday, Feb-

ruary 22; Army Day*, April 6; Easter Sunday (variable); Mother's Day, second Sunday in May; Memorial Day (half-staff until noon), May 30; Flag Day, June 14; Independence Day, July 4; Labor Day, first Monday in September; Constitution Day, September 17; Columbus Day, October 12; Navy Day*, October 27; Armistice Day, November 11; Thanksgiving Day, fourth Thursday in November; Christmas Day, December 25; such other days as may be proclaimed by the President of the United States; the birthdays of States (dates of admission); and on State holidays.

(e) The flag should be displayed daily, weather permitting, on or near the main administration building of every public institution.

(f) The flag should be displayed in or near every polling place on election days.

(g) The flag should be displayed during school days in or near every schoolhouse.

Sec. 3. That the flag, when carried in a procession with another flag or flags, should be either on the marching right; that is, the flag's own right, or, if there is a line of other flags, in front of the center of that line.

(a) The flag should not be displayed on a float in a parade except from a staff, or as provided in subsection (i).

(b) The flag should not be draped over the hood, top, sides, or back of a vehicle or of a railroad train or a boat. When the flag is displayed on a motorcar, the staff shall be fixed firmly to the chassis or clamped to the radiator cap.

(c) No other flag or pennant should be placed above or, if on the same level, to the right of the flag of the United States of America, except during church services conducted by naval chaplains at sea, when the church pennant may be flown above the flag during church services for the personnel of the Navy.

(d) The flag of the United States of America, when it is displayed with another flag against a wall from crossed staffs, should be on the right, the flag's own right, and its staff should be in front of the staff of the other flag.

(e) The flag of the United States of America should be at the center and at the highest point of the group when a number of flags of States or localities or pennants of societies are grouped and displayed from staffs.

(f) When flags of States, cities, or localities, or pennants of societies are flown on the same halyard with the flag of the United States, the latter should always be at the peak. When the flags are flown from adjacent staffs, the flag of the United States should be hoisted first and lowered last. No such flag or pennant may be placed

above the flag of the United States or to the right of the flag of the United States.

(g) When flags of two or more nations are displayed, they are to be flown from separate staffs of the same height. The flags should be of approximately equal size. International usage forbids the display of the flag of one nation above that of another nation in time of peace.

(h) When the flag of the United States is displayed from a staff projecting horizontally or at an angle from the window sill, balcony, or front of a building, the union of the flag should be placed at the peak of the staff unless the flag is at half-staff. When the flag is suspended over a sidewalk from a rope extending from a house to a pole at the edge of the sidewalk, the flag should be hoisted out, union first, from the building.

(i) When the flag is displayed otherwise than by being flown from a staff, it should be displayed flat, whether indoors or out, or so suspended that its folds fall as free as though the flag were staffed.

(j) When the flag is displayed over the middle of the street, it should be suspended vertically with the union to the north in an east and west street or to the east in a north and south street.

(k) When used on a speaker's platform, the flag, if displayed flat, should be displayed above and behind the speaker. When displayed from a staff in a church or public auditorium, if it is displayed in the chancel of a church, or on the speaker's platform in a public auditorium, the flag should occupy the position of honor and be placed at the clergyman's or speaker's right as he faces the congregation or audience. Any other flag so displayed in the chancel or on the platform should be placed at the clergyman's or speaker's left as he faces the congregation or audience. But when the flag is displayed from a staff in a church or public auditorium elsewhere than in the chancel or on the platform it shall be placed in the position of honor at the right of the congregation or audience as they face the chancel or platform. Any other flag so displayed should be placed on the left of the congregation or audience as they face the chancel or platform.

(l) The flag should form a distinctive feature of the ceremony of unveiling a statue or monument, but it should never be used as the covering for the statue or monument.

(m) The flag, when flown at half-staff, should be first hoisted to the peak for an instant and then lowered to the half-staff position. The flag should be again raised to the peak before it is lowered for the day. By "half-staff" is meant lowering the flag to one-half the distance between the top and bottom of the staff. Crepe streamers may be affixed to spearheads or flag-staffs in a parade only by order of the President of the United States.

* In 1949, Army Day and Navy Day were abandoned; since then, Armed Forces Day has been celebrated the third Saturday of May.

(n) When the flag is used to cover a casket, it should be so placed that the union is at the head and over the left shoulder. The flag should not be lowered into the grave or allowed to touch the ground.

SEC. 4. That no disrespect should be shown to the flag of the United States of America, the flag should not be dipped to any person or thing. Regimental colors, State flags, and organization or institutional flags are to be dipped as a mark of honor.

(a) The flag should never be displayed with the union down save as a signal of dire distress.

(b) The flag should never touch anything beneath it, such as the ground, the floor, water, or merchandise.

(c) The flag should never be carried flat or horizontally, but always aloft and free.

(d) The flag should never be used as drapery of any sort whatsoever, never festooned, drawn back, nor up, in folds, but always allowed to fall free. Bunting of blue, white, and red, always arranged with the blue above, the white in the middle, and the red below, should be used for covering a speaker's desk, draping the front of a platform, and for decoration in general.

(e) The flag should never be fastened, displayed, used, or stored in such a manner as will permit it to be easily torn, soiled, or damaged in any way.

(f) The flag should never be used as a covering for a ceiling.

(g) The flag should never have placed upon it, nor on any part of it, nor attached to it any mark, insignia, letter, word, figure, design, picture, or drawing of any nature.

(h) The flag should never be used as a receptacle for receiving, holding, carrying, or delivering anything.

(i) The flag should never be used for advertising purposes in any manner whatsoever. It should not be embroidered on such articles as cushions or handkerchiefs and the like, printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discard; or used as any portion of a costume or athletic uniform. Advertising signs should not be fastened to a staff or halyard from which the flag is flown.

(j) The flag, when it is in such condition that it is no longer a fitting emblem for display, should be destroyed in a dignified way, preferably by burning.

SEC. 5. That during the ceremony of hoisting or lowering the flag or when the flag is passing in a parade or in a review, all persons present should face the flag,

stand at attention, and salute. Those present in uniform should render the military salute. When not in uniform, men should remove the headdress with the right hand holding it at the left shoulder, the hand being over the heart. Men without hats should salute in the same manner. Aliens should stand at attention. Women should salute by placing the right hand over the heart. The salute to the flag in the moving column should be rendered at the moment the flag passes.

SEC. 6. That when the national anthem is played and the flag is not displayed, all present should stand and face toward the music. Those in uniform should salute at the first note of the anthem, retaining this position until the last note. All others should stand at attention, men removing the headdress. When the flag is displayed, all present should face the flag and salute.

SEC. 7. That the pledge of allegiance to the flag, "I pledge allegiance to the flag of the United States of America and to the Republic for which it stands, one Nation indivisible, with liberty and justice for all," be rendered by standing with the right hand over the heart. However, civilians will always show full respect to the flag when the pledge is given by merely standing at attention, men removing the headdress. Persons in uniform shall render the military salute.

SEC. 8. Any rule or custom pertaining to the display of the flag of the United States of America, set forth herein, may be altered, modified, or repealed, or additional rules with respect thereto may be prescribed, by the Commander-in-Chief of the Army and Navy of the United States, whenever he deems it to be appropriate or desirable; and any such alteration or additional rule shall be set forth in a proclamation.

Approved, December 22, 1942.

The American's Creed*

"I believe in the United States of America as a government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign Nation of many sovereign States; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice, and humanity for which American patriots sacrificed their lives and fortunes.

"I therefore believe it is my duty to my country to love it; to support its Constitution; to obey its laws; to respect its flag, and to defend it against all enemies."

* William Tyler Page, Clerk of the United States House of Representatives, wrote "The American's Creed" in 1917. It was accepted by the House of Representatives on behalf of the American people on April 3, 1918.

† Written by Francis Belamy in August, 1892, of the staff of *The Youth's Companion* in Boston, at the suggestion of James B. Upham, one of the editors.

AMERICAN ECONOMY



ESSENTIAL FACTS *about* BUSINESS • AGRICULTURE
LABOR • SOCIAL SECURITY • TAXES • WORLD TRADE

by

THE RESEARCH INSTITUTE of AMERICA, Inc.

Outstanding Authority in the Analysis of Business Facts, Economic Trends
and Government Action for over 30,000 Business and Professional Firms

ECONOMICS IS MORE THAN THE favorite pastime of a handful of college professors and government officials. It is the sum total of the plants and facilities which help make the goods we buy and use; it includes the service establishment, wholesale house and the corner grocer which help bring the goods and services closer to the ultimate customer. And finally, it includes all of us, 157 million Americans who help the American economy produce and at the same time, as consumers, share its products.

This portion of the *Information Please Almanac* presents essential facts about our unprecedented standard of living in peace, our tremendous potential as the arsenal of the Free World in war, should it ever again become necessary. The statistical tables afford a view of where we stand and how we have come here; imagination must tell us to what new highs the steady progress will eventually carry us.

Our personal fortunes are inextricably tied to what happens in these economic areas. Useful as this section may be as a reference source to answer specific questions, it is intended to do more. Exploring it, page by page, should give the reader an understanding of what the American economy is and what makes it tick.

Statistical Section

Basic facts on American business (starting on the next page) gives a bird's-eye view of American production and income. It shows the relative importance of various regions, trades and industries, and how we have been able to grow economically despite the heavy added demands of national defense.

What industry makes (starting at page 288) takes a closer look at our industrial output. It follows the steady rise in industrial production since Civil War days, the

changes which the war and postwar periods have brought about, and highlights the problems we had to face in starting a new rearmament effort so short a time after the end of the last world conflict.

What farmers produce (starting at page 294) proves that we are the leading nation in agricultural output as well as in the industrial field, and shows the reasons why.

What commerce distributes (starting at page 297) deals with the wholesale, retail and transportation channels through which industry's products flow to the final consumer.

What services contribute (starting at page 300) shows the important place of the hundreds of thousands of small service establishments, the growing protection which we gain through insurance, the importance of banking and stock exchanges to the financing of our economic effort, and the growing part which advertising plays in bringing buyer and seller together.

What government does and costs (starting at page 304) contains some vital facts on the ever-growing role of government in our everyday lives.

How we work (starting at page 307) deals with all of us: where we are employed, how long we work in our jobs both for ourselves and for the country as a whole.

What we earn and spend—what living costs us (starting at page 311) traces the steady rise in our incomes which is impressive indeed—even after allowing for the higher cost of living. It shows how the steady upward trend in prices is interrupted again and again by periods of moderate decline.

What we own (starting at page 318) and *what we owe* (starting at page 320) take inventory of the national assets and liabilities in which all of us share.

BASIC FACTS ON AMERICAN BUSINESS

A good measure of our economic health is the Gross National Product which shows the total expenditure by individuals, business and government for goods and services produced by the economy. It more than doubled during the recent war and, contrary to many expectations, exceeded that unprecedented level by a substantial margin in the postwar years. Private investment and personal consumption quickly took up most of the slack created by the drop in government expenditures for war.

National income also continues at over three times its size during the boom year of 1929. A drop in government payments and a smaller decline in manufacturing, which were inevitable after the end of the war, were largely made up by increases in wholesale and retail trades, services, agriculture, communications and public utilities.

These broad over-all figures obscure, of course, many individual differences. Billion dollar companies and other large concerns account for two-thirds of our output though there are well over ten small businesses for every one that is large. Our national income varies greatly among different states. The contribution which each region and industry makes to the national total has been undergoing significant changes.

Worsening international relations, underscored by the outbreak of hostilities in Korea in June 1950, presented us with the heavy added responsibility of a new rearmament effort. Contrary to 1939-41, there was a little slack to take up the burden of the new military demand. But new tremendous industrial expansion promises to give us the capacity with which to sustain a high level of both civilian activity and defense production.

Gross National Product or Expenditure

(in millions of dollars)

Source: U. S. Department of Commerce.

Item	1929	1933	1941	1945	1948	1950	1951	1952*
Gross national product.....	103,828	55,760	126,417	215,210	259,045	284,187	329,232	341,300
Personal consumption expenditures....	78,761	46,346	82,255	123,079	177,890	194,277	207,972	214,100
Durable goods.....	9,362	3,503	9,750	8,472	22,883	29,152	27,120	25,800
Nondurable goods.....	37,742	22,254	43,960	74,886	100,889	102,760	113,505	117,900
Services.....	31,657	20,589	28,545	39,721	54,118	62,365	67,347	70,400
Gross private domestic investment.....	15,824	1,306	18,334	10,733	42,693	50,349	58,515	49,700
New construction.....	7,824	1,142	6,784	3,934	17,716	22,889	23,252	23,650
Producers' durable equipment.....	6,438	1,783	7,676	7,545	19,948	21,989	24,927	25,700
Change in business inventories.....	1,562	-1,619	3,874	-746	5,029	5,471	10,336	350
Net foreign investment.....	771	150	1,124	-1,438	1,864	-2,304	193	1,400
Government purchases.....	8,472	7,958	24,704	82,836	36,598	41,865	62,552	76,150
Federal.....	1,311	2,018	16,923	74,976	21,022	22,165	40,881	53,050
National security.....	1,344	2,022	13,794	75,923	16,083	18,497	37,085	.....
National defense.....			.....	.....	11,677	14,244	33,663	.....
Other national security.....			.....	.....	4,406	4,253	3,422	.....
Other.....			3,173	1,031	5,570	3,909	4,202	.....
Less: Government sales.....	33	4	44	2,158	631	241	406	.....
State and local.....	7,161	5,940	7,781	8,040	15,576	19,700	21,671	23,100

* First half at annual rate, seasonally adjusted.

National Income by Industrial Origin

(in millions of dollars)

Source: U. S. Department of Commerce.

Industry	1929	1933	1941	1944	1946	1948	1950	1951	1951 % of total
All industries, total.....	87,355	39,584	103,834	183,838	180,286	233,469	239,170	277,554	100.00
Agriculture, forestry, and fisheries.....	8,002	3,521	8,880	14,830	18,251	21,829	17,378	19,987	7.20
Farms.....	7,791	3,402	8,655	14,486	17,821	21,310	16,825	19,384	6.98
Agricultural and similar service establishments.....	119	87	148	221	249	314	335	392	.14
Forestry.....	26	11	14	31	48	56	55	59	.02
Fisheries.....	66	21	63	92	133	149	163	152	.06
Mining.....	2,097	662	2,341	2,950	3,071	5,445	4,986	5,831	2.10
Metal mining.....	478	41	513	417	324	686	652	851	.30
Anthracite mining.....	285	130	165	238	286	343	276	284	.11
Bituminous and other soft coal.....	652	255	809	1,271	1,241	2,112	1,696	1,854	.67
Crude petroleum and natural gas.....	486	195	654	800	925	1,870	1,883	2,282	.82
Nonmetallic mining.....	196	41	200	224	295	434	479	560	.20
Contract construction.....	3,691	735	4,370	4,375	6,651	10,551	12,404	14,520	5.23

Industry	1929	1933	1941	1944	1946	1948	1950	1951	1951 % of total
Manufacturing.....	22,012	7,563	32,897	60,456	48,905	67,215	74,496	88,863	32.01
Food and kindred products.....	2,157	1,335	2,683	4,992	5,573	6,637	6,680	6,861	2.47
Tobacco manufactures.....	258	142	215	289	332	429	555	580	2.21
Textile-mill products.....	1,797	697	2,036	2,956	4,015	5,229	4,578	5,248	1.89
Apparel, other finished fabrics.....	1,240	532	1,429	2,598	3,242	3,441	3,237	3,655	1.32
Lumber and timber basic products.....	850	122	887	1,158	1,433	2,204	2,356	2,716	.97
Furniture and finished lumber.....	678	183	765	1,029	1,378	1,762	1,974	2,249	.81
Paper and allied products.....	563	290	1,034	1,352	1,709	2,377	2,682	3,382	1.22
Printing and publishing.....	1,580	790	1,359	2,045	2,724	3,277	3,613	4,000	1.44
Chemicals and allied products.....	1,136	690	1,941	3,399	3,337	4,383	5,341	6,601	2.38
Products of petroleum and coal.....	993	17	833	1,360	1,679	3,632	3,247	4,122	1.49
Rubber products.....	356	103	485	991	1,090	1,083	975	1,569	.56
Leather and leather products.....	601	270	614	865	1,071	1,213	1,151	1,342	.49
Stone, clay and glass products.....	799	208	1,072	1,137	1,561	2,154	2,688	3,117	1.12
Iron and steel and products.....	2,978	682	5,048	9,081	5,588	8,713	10,100	12,385	4.46
Nonferrous metals and products.....	767	155	1,201	1,942	1,748	2,079	2,483	3,172	1.14
Machinery (except electrical).....	1,903	426	3,850	6,000	4,829	7,115	7,409	10,033	3.62
Electrical machinery.....	1,048	276	1,915	3,732	2,391	3,661	4,665	5,530	1.99
Transportation equipment, except autos.....	317	69	2,276	12,494	1,703	1,874	1,998	3,441	1.24
Automobiles and auto equipment.....	1,394	384	2,364	1,413	1,920	4,132	6,632	6,275	2.26
Miscellaneous.....	597	192	890	1,623	1,582	1,820	2,132	2,585	.93
Wholesale and retail trade.....	13,090	5,375	15,903	25,137	34,137	42,192	42,783	47,882	17.26
Wholesale trade.....	3,955	1,631	4,795	6,995	9,512	12,611	11,624	14,266	5.14
Retail trade and auto services.....	9,135	3,744	11,127	18,142	24,625	29,581	31,159	33,616	12.12
Finance, insurance and real estate.....	13,098	5,681	9,583	13,088	14,696	17,780	20,532	22,380	8.06
Banking.....	1,960	493	1,028	1,667	2,200	2,444	2,861	3,223	1.16
Security and commodity brokers, dealers and exchanges.....	644	256	91	215	281	232	340	305	.11
Finance, n.e.c.....	195	-9	206	271	341	549	744	894	.32
Insurance carriers.....	788	514	843	1,022	1,083	1,753	2,095	2,189	.79
Insurance agents and combination offices.....	533	367	553	692	968	1,219	1,373	1,491	.54
Real estate.....	8,978	4,060	6,748	9,221	9,823	11,583	13,119	14,278	5.14
Transportation.....	6,562	2,958	6,180	11,197	10,182	12,641	13,204	14,836	5.34
Railroads.....	4,600	1,849	3,778	6,954	5,472	7,161	7,122	7,799	2.81
Local railways and bus lines.....	592	331	329	571	601	565	549	569	.20
Highway passenger transportation.....	231	118	251	676	785	794	754	816	.30
Highway freight transportation.....	482	356	906	1,305	1,683	2,240	2,794	3,161	1.14
Water transportation.....	267	153	437	858	828	830	773	945	.34
Air transportation (common carriers).....	-3	10	77	177	217	302	400	523	.18
Pipe-line transportation.....	130	47	145	147	128	196	230	297	.11
Services allied to transportation.....	263	94	266	509	478	553	582	726	.26
Communications and public utilities.....	2,878	2,000	3,313	4,100	4,850	5,939	7,165	8,068	2.91
Telephone and telegraph.....	1,130	692	1,135	1,676	1,987	2,471	2,959	3,301	1.19
Radio broadcasting.....	28	14	106	177	207	252	299	377	.14
Utilities: electric and gas.....	1,640	1,237	2,002	2,167	2,569	3,109	3,789	4,262	1.53
Local public services, n.e.c.....	80	57	70	80	87	107	118	128	.05
Services.....	10,168	5,447	9,709	13,268	16,614	19,821	22,311	24,382	8.79
Hotels and lodging places.....	577	193	520	914	1,180	1,215	1,296	1,395	.50
Personal services.....	1,220	667	1,320	1,931	2,452	2,573	2,822	3,023	1.09
Private households.....	3,117	1,177	2,076	2,220	2,591	3,369	4,275	4,726	1.71
Commercial and trade schools and employment agencies.....	49	15	62	147	112	169	199	193	.07
Business services, n.e.c.....	564	332	753	1,053	1,481	1,896	2,072	2,315	.83
Misc. repair services and hand trades.....	284	175	389	683	614	817	845	1,104	.40
Motion pictures.....	432	209	497	871	1,116	904	852	882	.32
Amusement and recreation, except motion pictures.....	371	152	338	453	721	723	729	759	.27
Medical and health services.....	1,522	937	1,587	2,315	2,900	3,746	4,307	4,678	1.68
Legal services.....	689	561	763	892	1,165	1,457	1,622	1,692	.61
Engineering, other professional, n.e.c.....	243	113	333	373	554	756	851	1,049	.38
Educational services, n.e.c.....	473	400	471	539	690	983	1,088	1,110	.40
Religious organizations.....	355	289	300	341	373	439	509	546	.20
Nonprofit organizations, n.e.c.....	272	227	300	536	665	774	844	910	.33
Government and government enterprises.....	5,114	5,349	10,479	34,211	22,647	19,609	23,366	30,121	10.85
Federal—general government.....	900	1,187	5,046	27,905	14,741	8,922	10,712	16,242	5.85
Federal—government enterprises.....	581	485	788	1,083	1,404	1,618	1,878	2,083	.75
State and local—general government.....	3,456	3,531	4,368	4,883	6,080	8,517	10,159	11,120	4.01
State and local—government enterprises.....	177	146	277	340	422	552	617	676	.24
Rest of the world.....	643	293	231	226	282	447	545	684	.25

Number of Firms in Operation by Industry and Size of Firm, March 31, 1948

(in thousands)

Source: U. S. Department of Commerce.

Industry	All size classes	Number of firms with employees numbering—							
		0-3	4-7	8-19	20-49	50-99	100-499	500-999	1,000 or more
All industries.....	3,966.8	2,955.3	506.0	309.8	121.4	39.3	78.7	3.3	3.1
Mining and quarrying.....	34.4	18.1	5.9	5.4	2.7	1.1	1.0	.1	.1
Contract construction.....	312.4	210.5	52.1	32.8	11.6	3.3	1.8	.1	.1
Manufacturing.....	329.3	146.6	52.1	56.8	37.9	16.8	15.3	2.0	1.8
Food and kindred products.....	36.1	12.5	7.3	8.0	4.6	1.8	1.6	.2	.1
Textiles and textile products.....	43.5	10.9	5.7	9.1	9.2	4.3	3.6	.4	.3
Leather and leather products.....	6.7	2.4	.8	1.1	1.0	.6	.7	.1	•
Lumber and lumber products.....	84.4	48.8	13.1	12.4	5.9	2.3	1.7	.1	.1
Paper and allied products.....	4.2	1.1	.4	.7	.8	.5	.6	.1	.1
Printing and publishing.....	45.5	26.9	7.3	5.9	3.1	1.2	.9	.1	.1
Chemicals and allied products.....	11.7	4.7	1.9	2.2	1.4	.6	.6	.1	.1
Rubber products.....	1.5	.8	.1	.2	.1	.1	.1	•	•
Stone, clay and glass products.....	12.5	5.6	2.4	2.1	1.2	.5	.5	.1	.1
Metals and metal products.....	58.6	20.0	9.4	11.1	8.2	4.1	4.4	.7	.8
Other manufacturing †.....	24.5	12.9	3.7	3.9	2.2	.9	.7	.1	.1
Transportation, communication and other utilities.....	186.5	143.0	19.1	13.6	6.0	2.1	1.9	.3	.4
Wholesale trade.....	201.4	108.3	42.3	32.6	12.8	3.4	1.8	.1	.1
Retail trade.....	1,704.2	1,332.3	224.3	170.3	29.3	6.2	3.1	.3	.3
General merchandise.....	78.8	59.0	11.1	5.2	2.0	.6	.7	.1	.2
Food and liquor.....	492.8	434.3	40.8	13.2	3.1	.7	.5	.1	.1
Automotive.....	77.9	40.6	15.1	14.9	6.0	1.1	.2	•	•
Apparel and accessories.....	95.4	68.4	14.3	8.4	2.8	.8	.5	•	•
Eating and drinking places.....	324.9	222.6	62.4	31.1	7.0	1.3	.5	•	•
Filling stations.....	229.3	211.2	14.6	3.1	.4	.1	•	•	•
Other retail trade.....	405.1	296.1	66.0	32.5	8.0	1.6	.7	•	•
Finance, insurance and real estate.....	345.8	285.0	33.0	18.2	5.9	1.9	1.4	.2	.1
Service industries.....	852.8	711.5	77.1	42.1	15.1	4.4	2.4	.2	.1
Hotels and other lodging places.....	78.2	62.8	7.5	4.5	1.8	.8	.7	.1	•
Personal services.....	428.2	382.0	26.6	11.8	5.0	1.8	.8	•	•
Business services.....	80.7	57.8	11.6	7.4	2.7	.7	.4	•	•
Automobile repair.....	95.4	75.7	13.3	5.3	.9	.1	.6	•	•
Miscellaneous repair.....	104.6	94.4	6.7	2.8	.6	.1	.7	•	•
Motion pictures.....	13.2	4.3	3.1	3.7	1.5	.4	.2	•	•
Other amusements.....	52.4	34.4	8.4	6.5	2.5	.5	.2	•	•

* Less than 50 firms. † Includes tobacco and miscellaneous manufactures.

Current Assets and Liabilities of All U. S. Corporations

(in billions of dollars)

Source: U. S. Securities and Exchange Commission

	1939	1945	1947	1950	1951
Total current assets:.....	54.5	97.4	123.6	153.0	170.7
Cash on hand & in banks.....	10.8	21.7	25.0	27.3	29.4
U. S. Govt. securities.....	2.2	21.1	14.1	20.8	21.6
Notes & accounts receivable.....	22.1	25.9	38.3	51.8	56.4
Inventories.....	18.0	26.3	44.6	51.4	61.2
Other.....	1.4	2.4	1.6	1.7	2.1
Total current liabilities:.....	30.0	45.8	61.5	74.6	88.1
Notes & accounts payable.....	21.9	25.7	37.6	44.6	52.5
Federal income tax.....	1.2	10.4	10.7	15.4	20.2
Other.....	6.9	9.7	13.2	14.6	15.4
Net working capital.....	24.5	51.6	62.1	78.4	82.6
Ratio of assets per dollar of liabilities.....	1.8	2.1	2.1	2.1	2.1

Number of Corporations in the U. S.

Source: U. S. Treasury Department.

Year	Active corporation	Inactive corporation
1930.....	463,036	55,700
1931.....	459,704	56,700
1932.....	451,884	56,752
1933.....	446,842	57,238
1934.....	469,804	59,094
1935.....	477,113	56,518
1936.....	478,857	51,922
1937.....	477,838	51,259
1939.....	469,617	46,343
1940.....	473,042	43,741
1941.....	468,906	40,160
1942.....	442,665	37,012
1943.....	420,485	35,268
1944.....	412,467	34,320
1945.....	421,125	33,335
1946.....	491,152	35,211
1947.....	551,807	35,876
1948.....	594,243	36,427
1949.....	594,842	35,115

Regional Economic Differences

Source: U. S. Depts. of Commerce and Labor and *Sales Management*, American Telephone and Telegraph Co. and *Electrical Merchandising*.

State	Value added by mfg. (\$ millions, 1950)*	Est. retail sales† (\$ millions, 1951)	Income received per capita, 1951	% increase per capita income received 1940-51	Manu- facturing employment (in thousands, 1950)*	% distribution of electric customers, 1951	% of families with telephones, Jan., 1952
New England.....	7,412	9,884	.....	.....	1,411	6.8	76
Maine.....	454	807	1,298	+160	107	.7	62
New Hampshire.....	354	532	1,444	+157	80	.4	67
Vermont.....	206	346	1,322	+154	41	.3	63
Massachusetts.....	3,660	5,060	1,738	+127	684	3.3	78
Rhode Island.....	615	769	1,691	+136	133	.6	69
Connecticut.....	2,123	2,370	1,999	+142	366	1.5	87
Middle Atlantic.....	23,498	33,112	.....	.....	3,868	20.6	73
New York.....	10,506	17,254	1,996	+131	1,737	10.2	74
New Jersey.....	4,867	5,295	1,885	+135	718	3.5	75
Pennsylvania.....	8,124	10,563	1,663	+166	1,413	6.9	70
East North Central.....	29,810	33,185	.....	.....	4,312	21.0	74
Ohio.....	7,967	8,346	1,799	+180	1,167	5.5	78
Indiana.....	3,833	3,982	1,649	+204	557	2.8	69
Illinois.....	7,930	9,729	1,928	+165	1,154	5.7	70
Michigan.....	7,392	7,527	1,734	+168	1,011	4.5	79
Wisconsin.....	2,687	3,601	1,614	+213	422	2.5	71
West North Central.....	5,133	14,720	.....	.....	804	9.7	71
Minnesota.....	1,200	3,095	1,474	+188	180	2.2	76
Iowa.....	926	2,848	1,531	+214	146	1.8	79
Missouri.....	2,024	3,993	1,519	+200	325	2.7	64
North Dakota.....	99	662	1,403	+277	18	.4	55
South Dakota.....	99	693	1,529	+303	18	.4	61
Nebraska.....	271	1,522	1,510	+248	48	.9	73
Kansas.....	614	1,907	1,460	+245	87	1.3	73
South Atlantic.....	8,446	17,431	.....	.....	1,593	12.7	48
Delaware.....	288	416	2,076	+133	41	.2	78
Maryland.....	1,455	2,185	1,714	+142	220	1.5	65
District of Columbia.....	114	1,453	2,095	+93	17	.4	93
Virginia.....	1,326	2,398	1,295	+190	222	1.9	50
West Virginia.....	882	1,289	1,174	+195	124	1.2	45
North Carolina.....	1,858	2,876	1,052	+233	403	2.5	38
South Carolina.....	855	1,378	1,003	+249	193	1.2	33
Georgia.....	1,227	2,507	1,103	+249	286	1.9	43
Florida.....	440	2,928	1,284	+174	87	1.9	48
East South Central.....	3,445	7,373	.....	.....	637	6.2	40
Kentucky.....	958	1,921	1,066	+245	136	1.6	41
Tennessee.....	1,172	2,426	1,064	+237	222	1.9	50
Alabama.....	1,034	1,853	950	+253	206	1.7	38
Mississippi.....	281	1,173	771	+278	73	1.0	27
West South Central.....	3,849	13,340	.....	.....	581	8.8	51
Arkansas.....	321	1,302	926	+265	71	1.1	31
Louisiana.....	916	1,988	1,135	+217	124	1.5	49
Oklahoma.....	344	1,824	1,182	+229	58	1.4	57
Texas.....	2,269	8,226	1,412	+242	329	4.8	55
Mountain.....	1,442	5,459	.....	.....	154	3.3	59
Montana.....	108	632	1,742	+202	17	.4	56
Idaho.....	119	638	1,356	+206	15	.4	58
Wyoming.....	38	362	1,722	+185	7	.2	60
Colorado.....	341	1,505	1,568	+202	56	.9	73
New Mexico.....	103	587	1,301	+265	14	.4	38
Arizona.....	128	796	1,432	+207	15	.5	47
Utah.....	178	727	1,424	+198	28	.4	71
Nevada.....	29	213	2,029	+147	2	.1	58
Pacific.....	7,041	16,730	.....	.....	1,011	10.9	71
Washington.....	1,113	2,446	1,755	+178	160	1.7	70
Oregon.....	807	1,858	1,652	+187	117	1.1	64
California.....	5,121	12,428	1,933	+141	734	8.1	73
Total.....	89,676	151,235	1,584	+175	14,370	100.0	65

* Based on preliminary report of Census of Manufactures. Value added by manufacture is computed by subtracting cost of materials, supplies, fuel, electric energy and contract work. † Copyright 1962 *Sales Management's* "Survey of Buying Power"; further reproduction not licensed.

Business Cycles in the United States (Standard Reference Dates)

Source: National Bureau of Economic Research.

Peak of expansion		Trough of contraction		Duration in months		
				Expansion	Contraction	Full cycle
June.....	1857*	December.....	1858	30	18	48
October.....	1860	June.....	1861	22	8	30
April.....	1865	December.....	1867	46	32	78
June.....	1869	December.....	1870	18	18	36
October.....	1873	March.....	1879	34	65	99
March.....	1882	May.....	1885	36	38	74
March.....	1887	April.....	1888	22	13	35
July.....	1890	May.....	1891	27	10	37
January.....	1893	June.....	1894	20	17	37
December.....	1895	June.....	1897	18	18	36
June.....	1899	December.....	1900	24	18	42
September.....	1902	August.....	1904	21	23	44
May.....	1907	June.....	1908	33	13	46
January.....	1910	January.....	1912	19	24	43
January.....	1913	December.....	1914	12	23	35
August.....	1918	April.....	1919	44	8	52
January.....	1920	July.....	1921	9	18	27
May.....	1923	July.....	1924	22	14	36
October.....	1926	November.....	1927	27	13	40
June.....	1929	March.....	1933	19	45	64
May.....	1937	June.....	1938	50	13	63
February.....	1945	October.....	1945	80	8	88
November.....	1948	October.....	1949	37	11	48
Average duration 23 cycles 1854 to 1949.....				29.1	20.3	49.5

* Date of previous trough of contraction was December, 1854.

Business Population (In thousands of concerns)

Source: U. S. Department of Commerce, Dun & Bradstreet.

Item	1929	1933	1941	1943	1945	1946	1947	1949	1950	1951
Total operating businesses ¹	3097	2847	3364	3045	3258	3605	3879	3965	3980	4009
Manufacturing.....	258	167	235	239	263	302	331	312	303	306
Wholesale trade.....	115	110	155	141	160	181	197	203	204	207
Retail trade.....	1341	1304	1590	1400	1457	1574	1673	1693	1685	1672
Transportation, communications, public utilities.....	117	106	146	121	140	163	181	189	194	204
Finance, insurance & real estate.....	325	289	306	301	325	338	345	345	347	352
Service industries.....	670	652	706	653	706	773	831	853	855	857
Mining & quarrying.....	38	34	39	32	31	32	34	35	34	34
Contract construction.....	233	185	187	158	177	243	289	335	358	375
New entrants ²	(*)	(*)	(*)	(*)	430	620	476	359	398	406
Discontinued businesses ³	(*)	(*)	(*)	(*)	203	226	292	386	365	377
Commercial & industrial failures ⁴	23	20	12	3	1	1	3	5	9	8

¹ Average number of firms in operation during the year. ² Annual totals. ³ Not available. ⁴ Closures resulting in a known loss to creditors. NOTE: Detail will not necessarily add to totals because of rounding.

WHAT INDUSTRY MAKES

American industry is the most productive in the world. Because of its unsurpassed stock of modern plants, machinery and other productive equipment, the training and efficiency of its more than 23 million workers, and the skillful productive techniques instituted and supervised by intelligent management, industrial output per man-hour in the United States is reliably estimated at approximately twice the British level, three to four times the prewar French and German achievements, and many more times those of other European countries.

Manufacturing is the pivotal industrial occupation, for its periodic expansions and contractions largely determine the level of activity achieved in every other sector of the economy. Armed conflict in Korea brought with it the second wave of broad industry expansion the United States has experienced in little more than ten years.

The early postwar period saw a quick rise in industrial production for civilian purposes which took up much of the drop in the output of war goods. During 1949 it became apparent that many war born shortages had been made up and there was a drop in the level of production and a shift in its character. Then came the outbreak of open hostilities in Korea. After a relatively short interlude of voluntary disarmament, the United States once more had to embark on a program of concerted preparations for national defense. Unlike 1939, consumers went on an unprecedented buying spree.

However, this frantic buying did not last. After a period of readjustment, mid-1952 saw American industry getting back to normal, filling both defense and civilian requirements without particular strain or difficulty.

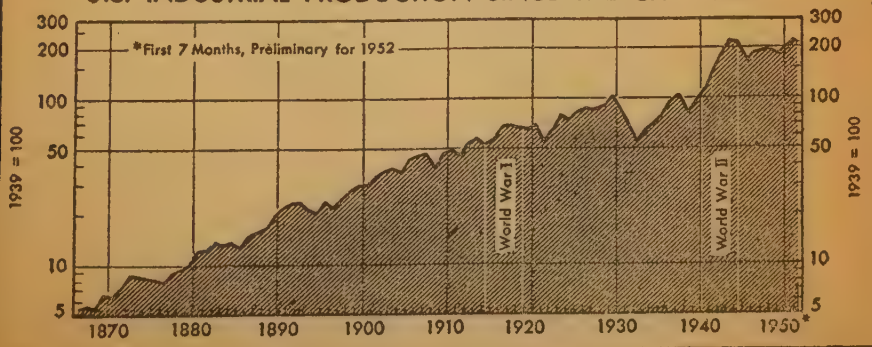
Census of Manufactures by Major Industry Group: 1939, 1947 and 1950

Sources: Bureau of Census, U. S. Department of Commerce.

Group	No. of establishments (units)		Production and related workers (average for the year) (thousands)			Value added by manufacture* (millions)		
	1939	1950	1939	1947	1950	1939	1947	1950
Food and kindred products.....	43,667	38,466	802	1,099	1,074	\$ 3,485	\$ 9,025	\$10,095
Tobacco manufactures.....	765	.....	88	103	86	350	641	806
Textile mill products.....	6,388	8,434	1,082	1,147	1,139	1,818	5,341	5,624
Apparel and related products.....	20,275	26,145	753	973	1,004	1,386	4,443	4,174
Lumber and products, except furniture..	13,208	41,506	423	596	692	731	2,497	3,156
Furniture and fixtures.....	5,178	7,934	189	283	296	418	1,378	1,667
Paper and allied products.....	3,328	4,456	270	389	400	888	2,875	3,432
Printing and publishing industries.....	24,878	29,427	324	438	471	1,765	4,269	4,903
Chemicals and allied products.....	8,839	10,339	276	466	457	1,819	5,365	7,237
Petroleum and coal products.....	1,227	1,142	108	170	162	697	2,015	2,139
Rubber products.....	595	838	121	215	194	406	1,303	1,610
Leather and leather products.....	3,505	4,903	327	349	342	583	1,533	1,499
Stone, clay and glass products.....	6,678	9,707	267	406	418	856	2,306	3,138
Primary metal industries.....	3,512	5,322	672	1,010	977	2,169	5,765	7,951
Fabricated metal products.....	9,532	16,975	451	823	807	1,401	4,921	6,211
Machinery (except electrical).....	8,860	17,909	536	1,244	1,064	2,037	7,812	8,765
Electrical machinery.....	1,979	3,873	248	639	607	941	3,894	4,794
Transportation equipment.....	2,012	2,780	545	987	1,006	1,773	5,869	8,547
Instruments and related products.....	1,292	2,697	85	182	172	333	1,080	1,418
Miscellaneous manufactures.....	8,084	13,764	242	398	401	630	2,090	2,501
All industries, total.....	173,802	247,300	7,808	11,918	17,766	\$24,487	\$74,426	\$89,676

* Value added by manufacture is computed by subtracting cost of materials and supplies from value of shipments.

U.S. INDUSTRIAL PRODUCTION SINCE THE CIVIL WAR



Industrial Production Indexes, by Groups

(1935-39 average = 100)

Source: Board of Governors of the Federal Reserve System.

Item	1919	1929	1932	1939	1941	1943	1945	1947	1949	1950	1951	1952*
Durable manufactures												
Iron and steel.....	84	133	32	114	186	208	183	195	188	229	259	236
Machinery.....	—	130	43	104	221	443	343	277	234	270	336	356
Transportation equipment.....	—	134	38	103	245	735	487	230	235	261	307	330
Nonferrous metal and products.....	—	136	52	113	191	267	204	187	160	209	207	217
Lumber and products.....	—	146	51	106	134	129	109	143	130	159	157	153
Stone, clay and glass products.....	50	110	51	114	162	173	163	206	188	209	232	220
Total.....	84	132	41	109	201	360	274	220	202	237	273	276
Nondurable manufactures												
Textiles and products.....	73	94	71	112	152	153	146	163	147	183	174	154
Leather and products.....	94	95	76	105	123	114	117	116	106	111	101	104
Manufactured food products.....	77	101	79	108	127	145	150	157	163	164	165	163
Alcoholic beverages.....	—	—	—	98	117	117	178	190	172	190	192	162
Paper and products.....	—	85	65	114	150	139	139	158	156	187	201	187
Tobacco products.....	72	96	79	106	120	133	136	160	165	168	174	179
Printing and publishing.....	—	104	74	106	127	111	108	144	154	170	175	175
Petroleum and coal products.....	—	96	69	110	135	185	236	193	209	229	268	262
Chemical products.....	—	89	68	112	176	384	284	251	241	263	298	296
Rubber products.....	—	100	64	113	163	228	215	226	183	223	243	241
Total.....	62	93	70	109	142	176	166	172	168	187	194	186
Total, durable and nondurable manufactures	72	110	57	109	168	258	214	194	183	209	229	226
Minerals												
Fuels.....	—	103	72	105	122	132	143	155	139	152	169	165
Metals.....	—	134	36	113	149	126	101	117	107	125	135	122
Total.....	71	107	67	106	125	132	137	149	135	148	164	159
Total, manufactures and minerals.....	72	110	58	109	162	239	203	187	176	200	219	216

* First 6 months seasonally adjusted average, preliminary.

Electric Energy Output of Utilities*

(in millions of kilowatt hours)

Source: Federal Power Commission.

Year	Total	Ownership					Source of energy	
		Privately owned	Publicly owned†	Municipal	Federal	Co-operatives, power districts, state projects	% Public to total	Fuels as % of total
1920.....	39,405	37,716	1,689	1,373	58	94	4.3	23,644 60.0
1929.....	92,180	87,514	4,667	3,498	300	451	5.1	59,533 64.6
1932.....	79,393	74,488	4,905	3,517	445	572	6.2	46,515 58.6
1933.....	81,740	76,668	5,072	3,583	458	654	6.2	48,283 59.1
1935.....	95,287	89,330	5,958	4,229	555	732	6.3	56,915 59.7
1937.....	118,913	110,464	8,449	5,270	1,843	863	7.1	74,900 63.0
1939.....	127,642	115,078	12,564	5,688	5,476	944	9.8	84,078 65.9
1941.....	164,788	144,290	20,498	7,023	10,794	2,192	12.4	113,925 69.1
1942.....	185,979	158,052	27,928	7,610	16,893	2,848	15.0	122,109 65.7
1943.....	217,759	180,247	37,511	9,223	24,485	3,156	17.2	144,127 66.2
1944.....	228,189	185,850	42,339	9,637	28,866	3,065	18.6	154,244 67.6
1945.....	222,486	180,926	41,560	9,624	28,001	3,146	18.7	142,516 64.1
1946.....	223,178	181,020	42,158	10,801	26,960	3,598	18.9	144,772 64.9
1947.....	255,739	208,105	47,634	12,415	29,877	4,511	18.6	177,313 69.3
1948.....	282,698	228,231	54,467	13,123	35,373	5,134	19.3	200,228 70.8
1949.....	291,100	233,112	57,988	13,410	38,102	5,643	19.3	201,351 69.2
1950.....	329,141	266,860	62,281	15,244	40,388	5,793	18.9	233,203 70.9
1951.....	370,673	301,845	68,828	17,617	44,120	6,204	18.6	270,922 73.1

* Output by industrial establishments was as follows (in millions of kilowatt hours): 1939—33,667; 1940—38,070; 1941—43,519; 1942—47,167; 1943—49,781; 1944—51,336; 1945—48,769; 1946—46,431; 1947—51,661; 1948—64,110; 1949—66,907; 1950—59,533; 1951—64,976. † Includes non-central stations.

Fuel Production

Source: U. S. Dept. of Interior, U. S. Dept. of Commerce, and American Gas Association.

Year	Coke, in thousands of short tons	Anthracite coal, in thousands of short tons	Bituminous coal, in thousands of short tons	Natural gas, in millions of therms (produced and marketed) ¹	Manufactured gas, in millions of therms ²	Crude petroleum, in thousands of 42-gal. barrels
1929.....	59,884	73,828	534,989	20,490 ³	2,070 ⁴	1,007,323
1933.....	27,589	49,541	333,631	16,640 ³	1,820	905,656
1939.....	44,327	51,487	394,855	26,220	1,830	1,264,962
1941.....	65,187	56,368	514,149	29,780	1,990	1,402,228
1943.....	71,676	60,644	590,177	36,180	2,240	1,505,613
1945.....	67,308	54,830	577,617	41,960	2,600	1,713,655
1946.....	58,498	60,507	533,922	43,030	2,690	1,733,424
1947.....	73,446	57,190	630,624	27,150	2,370	1,856,107
1948.....	74,862	57,140	599,518	53,130	2,850	2,016,282
1949.....	63,637	42,702	437,868	55,770 ⁴	2,680	1,840,307
1950.....	72,100	44,392	511,441	64,580 ⁴	2,659	1,971,845
1951.....	79,124	41,509	535,154	76,240 ⁴	2,435	2,244,529
1952 ⁵	25,754 ⁶	16,485	210,560	.....	.....	926,586

¹ Includes all natural gas in sales of natural gas mixed with manufactured gas. ² Includes all manufactured gas products produced and purchased by gas utilities. ³ Estimated. ⁴ Preliminary. ⁵ First 5 months. ⁶ First 4 months only.

Textile Consumption

Source: U. S. Dept. of Commerce.

The Rayon Organon.

Year	Cotton (thousands of bales)	Wool consumption* (millions of lbs.)	Filament rayon yarn (thousands of lbs.)
1920.....	5,843	314	8,760
1929.....	5,407	368	131,760
1932.....	5,017	230	152,520
1941.....	10,586	648	452,520
1943.....	10,666	636	494,400
1945.....	9,143	645	602,400
1947.....	9,539	698	729,300
1948.....	9,099	693	836,500
1949.....	7,875	500	781,100
1950.....	9,652	625	949,100
1951.....	10,370	479	860,400
1952 [†]	3,962	183	300,900

* Scoured basis. † First 4 months.

Expenditures for New Plant and Equipment*

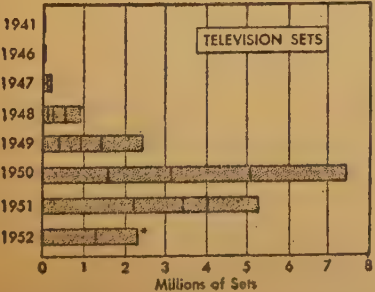
(millions of dollars)

Source: Securities and Exchange Commission and U. S. Department of Commerce.

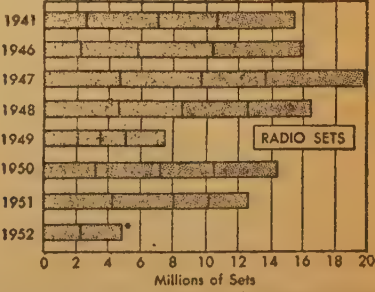
Year	Manufacturing and mining	Transportation	All other†	Total
1939.....	2,269	645	2,598	5,512
1945.....	4,366	1,122	3,204	8,692
1946.....	7,217	1,506	6,125	14,848
1947.....	9,394	2,187	9,031	20,612
1948.....	10,016	2,604	9,439	22,059
1949.....	7,941	2,239	9,105	19,285
1950.....	8,198	2,323	10,084	20,605
1951.....	16,113	2,966	7,253	26,332
1952 [†]	9,771	2,249	8,182	20,202

* Data exclude agriculture. † Includes electric and gas utilities, trade, service, communications, construction and finance. ‡ First 3 quarters, estimated.

TELEVISION VERSUS RADIO
(Set Production-Quarterly)



Source: Radio Manufacturers Association



* First 6 months 1952 production

Metals Production (in short tons)

Source: American Iron & Steel Institute, Iron Age, Copper Institute, Zinc Institute, American Bureau of Metal Statistics and U. S. Bureau of Mines.

Year	Pig iron and ferro-alloys	Steel ingots and castings	Rolled iron and steel products		Aluminum (primary)	Copper (smelter output from domestic ore)	Zinc (slab smelter output, all grades)*	Refined lead (from domestic ore; anti-monial lead excluded)
			Total	Plates and sheets				
1929.....	47,727,661	63,205,490	45,997,746	13,928,670	113,986	1,001,432	631,601	672,498
1932.....	9,835,227	15,322,901	11,705,219	3,956,505	52,444	272,005	213,531	255,337
1939.....	35,677,097	52,798,714	39,067,553	13,931,919	163,545	712,675	538,198	420,967
1941.....	56,686,604	82,839,259	62,324,187	20,293,071	309,067	966,072	863,955	470,517
1943.....	62,769,947	88,836,512	63,292,673	22,543,040	920,179	1,092,939	971,873	406,544
1945.....	54,919,029	79,701,648	59,811,669	19,314,316	495,060	782,726	799,520	356,535
1946.....	46,514,826	66,602,724	50,936,772	16,324,199	409,630	599,656	759,346	293,309
1948.....	61,911,559	88,640,470	69,191,952	25,694,480	623,456	842,477	850,105	339,413
1949.....	54,916,785	77,978,176	60,882,387	23,470,886	603,462	757,931	870,113	404,449
1950.....	66,400,311	96,836,075	75,190,581	30,231,722	718,622	911,352	910,354	418,809
1951.....	72,448,543	105,199,848	81,911,320	31,869,683	836,881	929,000†	931,833	448,473†

* From 1940 includes both foreign and domestic ores. † Preliminary.

Production of Chemicals

Source: U. S. Department of Commerce, U. S. Tariff Commission, U. S. Treasury Department, National Fertilizer Association, U. S. Bureau of Mines; W. P. B.

	Methanol ¹ (in thousands of proof gals.)	Sulfuric acid (in short tons)	Ethyl alcohol (in thousands of proof gals.)	Sulfur (in long tons)	Glycerin ² (in thousands of pounds)	Explosives ³ (in thousands of pounds)	Fertilizer ⁴ (in thousands of short tons)
1929.....	12,408 ⁵	2,262,780	206,664	2,357,640	113,140	484,596	8,011
1932.....	10,116	952,584	128,820	929,556	107,853 ⁶	227,508	4,384
1939.....	38,916	2,051,532	221,628	2,088,384	154,376	372,468	7,707
1941.....	61,872	6,820,080	367,680	3,131,328	194,327	460,080	9,183
1943.....	69,804	8,604,576	5,388	2,538,792	159,706	451,776	11,463
1946.....	76,944	9,305,145	244,628	3,859,642	148,562	515,772	14,892
1947.....	84,707	10,574,941	315,671	4,441,214	191,611	606,870	15,039
1948.....	158,465	10,950,097	324,331	4,869,211	196,279	665,525	15,980
1949.....	127,212	10,884,761	320,852	4,745,014	199,978	604,475	16,449
1950.....	137,619	12,805,024	385,113	5,192,184	230,022	692,563	17,984
1951.....	186,314	13,343,903	480,241	5,278,249	205,289	720,183	18,666

¹ Crude and synthetic. ² High gravity and yellow distilled and chemically pure. ³ Shipments. ⁴ Consumption. ⁵ 1930. ⁶ 1933.

Wood Pulp, Paper and Lumber

Source: U. S. Bureau of the Census and National Lumber Manufacturers Assn.

Year	Wood pulp (in thousands of short tons)	Paper and paperboard (in thousands of short tons)	Lumber (in millions of board feet)
1919.....	3,518	6,098	34,552
1929.....	4,863	11,140	36,886
1939.....	6,993	13,510	25,148
1941*.....	10,011	17,934	33,613
1943.....	9,060	17,036	34,289
1945.....	9,471	17,374	28,122
1947.....	11,952	21,034	35,404
1948.....	12,881	22,061	36,631†
1949.....	12,083	20,299	33,387†
1950.....	14,768	24,289	38,366†
1951.....	16,532	26,072	37,272†
1952†.....	7,042	10,206	14,959

* Coverage for paper and paperboard increased in 1941. † Subject to revision. ‡ First 5 months, preliminary.

Number of Nonfarm Houses Built*

Source: U. S. Bureau of Labor Statistics, National Bureau of Economic Research.

Year	Houses	Year	Houses
1900.....	204,000	1937.....	336,000
1905.....	459,000	1938.....	406,000
1910.....	475,000	1939.....	515,000
1915.....	475,000	1940.....	603,000
1920.....	247,000	1941.....	715,000
1925.....	937,000	1942.....	497,000
1927.....	810,000	1943.....	350,000
1928.....	753,000	1944.....	169,000
1929.....	509,000	1945.....	226,000
1930.....	330,000	1946.....	670,500
1931.....	254,000	1947.....	849,000
1932.....	134,000	1948.....	931,600
1933.....	93,000	1949.....	1,025,100
1934.....	126,000	1950.....	1,396,000
1935.....	221,000	1951.....	1,091,300
1936.....	319,000	1952†.....	348,600

* Data represents new dwelling units started. † First 4 months, preliminary.

Consumer Durable Goods Output

Source: Electrical Merchandising, Radio and Television Retailing, and Automobile Manufacturers Association.

Year	Electric clothes washers		Electric irons		Electric ranges		Electric vacuum cleaners		Electric refrigerators		Home radio sets		Passenger cars	
	Number sold, in thousands	Average retail price	Number sold, in thousands	Average retail price	Number sold, in thousands	Average retail price	Number sold, in thousands	Average retail price	Number sold, in thousands	Average retail price	Number sold, in thousands	Average retail price	Factory sales, in thousands	Average factory price
1900.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	\$1,229
1910.....	3 ¹	\$75 ¹	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	181	1,190
1920.....	600	120	.....	.....	40	.....	1,024	50	5 ⁴	\$550 ⁴	100 ⁴	\$50 ⁴	1,906	949
1925.....	736	141	2,750	\$5.81	85	\$176	1,056	62	75	425	2,000	83	3,735	658
1929.....	956	113	.....	.....	173	165	1,253	50	778	292	4,428	136	4,587	621
1932.....	570	59	.....	.....	60	150	447	40	798	195	3,000	47	1,135	545
1937.....	1,465	72	4,157	3.87	405	134	1,210	56	2,310	171	8,065	56	3,916	573
1941.....	1,892	79	5,585	3.78	728	142	1,670	56	3,500	155	13,000	35	3,780	679
1942.....	449	91	1,145	4.34	225	.....	580	61	520	.....	4,400	35	223	738
1945.....	251 ²	.....	1,687	.....	74	.....	258 ³	.....	264	.....	500	40	70	818
1946.....	2,047	121	9,600	8.64	577	186	2,290	68	2,100	207	14,000	50	2,149	921
1947.....	3,657	148	11,004	11.02	1,210	230	3,801	75	3,400	240	17,000	67	3,558	1,114
1948.....	4,196	173	7,360	12.82	1,500	235	3,361	77	4,766	260	16,000	40	3,909	1,220
1949.....	3,065	171	6,310	12.94	1,056	230	2,890	77	4,450	255	10,000	50	5,119	.....
1950.....	4,273	184	7,475	13.54	1,830	233	3,529	79	6,200	258	14,600	49	6,666	.....
1951.....	3,433	210	7,585	13.73	1,400	245	2,700	86	4,075	275	9,050	48	5,337	.....

¹ 1909. ² Includes gas engine washers. ³ Includes hand cleaners. ⁴ 1921. ⁵ 1922.

New Construction Activity, by Type (in millions of dollars)

Source: U. S. Department of Commerce and U. S. Department of Labor.

Activity	1929	1933	1940	1945	1949	1950	1951	1952 ¹
Total new construction activity.....	10,793	2,879	8,632	5,633	22,789	28,749	31,025	11,918
New private construction activity.....	8,307	1,231	5,504	3,235	16,384	21,610	21,684	8,087
Residential (nonfarm).....	3,625	470	2,985	1,100	8,267	12,600	10,973	3,954
New dwelling units.....	3,040	290	2,560	720	7,257	11,525	9,849	3,520
Additions and alterations.....	340	145	335	340	825	900	934	371
Nonhousekeeping.....	245	35	90	40	185	176	190	63
Nonresidential building, except farm and public utility.....	2,694	406	1,025	1,020	3,228	3,777	5,152	1,997
Industrial.....	949	176	442	642	972	1,062	2,117	1,001
Commercial.....	1,135	130	348	203	1,027	1,288	1,371	388
Other.....	610	100	235	175	1,229	1,427	1,664	608
Public utility.....	1,578	261	771	827	3,323	3,330	3,695	1,468
Railroad.....	510	94	167	264	352	315	399	152
Telephone and telegraph.....	354	45	322	117	533	440	487	219
Other public utility.....	714	115	482	446	2,438	2,575	2,809	1,097
Farm construction.....	307	49	240	267	1,488	1,791	1,800	639
Residential.....	147	29	145	100	695	837	850	.....
Nonresidential.....	160	20	95	167	793	954	950	.....
All other private.....	103	45	33	21	78	112	64	29
New public construction activity.....	2,486	1,648	3,628	2,398	6,405	7,139	9,341	3,831
Residential.....	.....	.....	200	80	359	345	595	298
Nonresidential building.....	659	230	615	937	2,068	2,402	3,471	1,511
Industrial.....	.....	2	164	755	177	224	958	540
Educational.....	389	52	156	59	934	1,163	1,531	646
Hospital and institutional.....	101	49	54	85	477	476	498	191
Other.....	169	127	241	38	480	539	484	134
Military and Naval.....	19	36	385	690	137	177	1,019	630
Highway.....	1,266	847	1,302	398	2,131	2,381	2,400	710
Sewer and water.....	253	95	338	97	619	671	706	261
Conservation and development.....	115	359	528	130	793	881	860	336
All other ²	23	16	260	66	298	282	290	85

¹ First 5 months, preliminary. ² Warehouses, office and loft buildings; stores, restaurants and garages. ³ Miscellaneous public service enterprises and all Federal not included elsewhere.

AGE OF AMERICAN HOMES, 1950

AGE

Over 30 Years

46.4%

37.6%

53.7%

20 - 30 Years

22.2%

16.1%

17.6%

10 - 20 Years

11.8%

17.1%

14.4%

5 - 10 Years

7.7%

8.7%

5.3%

0 - 5 Years

11.8%

20.5%

9.1%

Urban
(28,292,000)Rural Non-farm
(9,555,000)Rural Farm
(6,271,000)

SOURCE: U. S. DEPARTMENT OF COMMERCE

WHAT FARMERS PRODUCE

The United States is universally recognized as the industrial giant of the world. Less well known is the fact that it is also by far the leading nation in agricultural output.

There is every reason to believe that this substantial margin of leadership will continue, even expand. For a technological and scientific revolution has been taking place in agriculture which may be as important—and as dislocating—as the industrial revolution of the 18th and 19th centuries. This revolution on the farm involves the greater use of more efficient machinery, the better application of chemical fertilizers and insecticides, the introduction of greatly improved strains of seed, and the beginnings of the new industry of "chemical farming."

A foretaste of this technological progress took place during World War II. High costs of keeping working stock and high farm wages made farmers anxious to mechanize their farms, and with war-increased incomes they could afford it. Thanks to mechanization and a ready market here and abroad, farm production was steadily above prewar levels throughout the war and postwar periods. This was accomplished even though farm population declined substantially.

In the early postwar period this record farm production was a highly welcome gift to help us feed a hungry and war-ravished world. As other countries rebuilt their own agricultural output, however, and needed less from us, we seemed to be coming up once more against our old problem of farm surpluses. The war in Korea, however, may well have delayed indefinitely the time when we will really have to face and solve this problem. Despite some price declines and near record crops, the prospects look good that our agriculture could permanently combine economic stability with growing output.

Population, Farms, and Farm Property

Source: U. S. Bureau of the Census.

Item	1850	1910	1920	1925	1930	1940	1945	1950
Farm population (thousands).....		32,077	31,559	30,443	29,450	29,047	24,342	23,331
Number of farms (thousands).....	1,449	6,361	6,448	6,371	6,288	6,096	5,859	5,859
All land in farms (million acres).....	293	878	955	924	986	1,060	1,142	1,904
Average acreage per farm.....	202.6	138.1	148.2	145.1	156.9	174.0	194.8	215.3
Value of farm property (millions of dollars).....	3,967	40,837	77,923	57,017	56,975	41,254	60,008	....
Land.....		28,475	54,829	37,721	34,929	23,236		
Buildings.....		6,325	11,486	11,746	12,949	10,405	54,939	75,830
Implements and machinery.....	151	1,265	3,594	2,691	3,301	3,060	6,288	13,016
Livestock.....	544	4,771	8,012	4,858	5,794	4,526	9,011	12,892
Total population (thousands).....	23,191	91,972	105,710	114,035	122,775	131,669	125,120*	150,697
Urban.....		42,166	54,304	61,451	68,954	74,423	74,570	96,468
Rural.....		49,806	51,406	52,584	53,820	57,245	50,580	54,230

* Excluding armed services.

Production of Agricultural Commodities, by Kind

Year	Corn, 1,000 bushels	Wheat, 1,000 bushels	Rice (rough) 1,000 bushels	Hay (1,000 tons)	Oats (1,000 bushels)	Cotton 1,000 bales of 500 lbs.	Tobacco, 1,000 pounds
1900.....	2,661,978	599,315	9,793	49,843 ¹	945,483	10,124	851,980
1905.....	2,954,148	706,026	16,038	66,563 ¹	1,104,395	10,576	938,865
1910.....	2,852,794	625,476	24,731	75,184	1,106,162	11,609	1,142,320
1915.....	2,829,044	1,008,637	26,107	91,436	1,435,270	11,172	1,157,425
1920.....	3,070,604	843,277	51,648	91,668	1,444,291	13,429	1,509,212
1925.....	2,798,367	668,700	33,038	78,832	1,405,268	16,105	1,376,008
1929.....	2,515,937	824,183	39,534	85,281	992,747	14,825	1,532,676
1934.....	1,448,920	526,052	39,047	62,084	458,780	9,636	1,084,589
1939.....	2,580,985	741,210	54,062	82,413	870,258	11,817	1,880,629
1945.....	2,880,933	1,108,224	68,150	108,539	1,535,676	9,015	1,994,262
1946.....	3,249,950	1,153,046	72,216	100,739	1,497,904	8,640	2,319,409
1947.....	2,383,970	1,367,186	78,259	102,765	1,199,422	11,857	2,167,702
1949.....	3,377,790	1,146,463	40,113 ³	99,536	1,329,473	16,128	1,970,376
1950.....	3,131,009	1,026,755	37,971 ³	106,819	1,465,134	10,012	2,032,450
1951.....	2,941,423	987,474	43,805 ³	108,461	1,316,396	15,144	2,328,226
1952 ²	3,135,689	1,298,389	45,368 ³	99,646	1,266,025	14,735	2,040,172

¹ Tame hay only. ² Preliminary estimates. ³ Thousands of 100-lb. bags.

Domestic Animals on Farms, Number and Value

January 1:	Number (thousands)							Value of domestic animals (millions of dollars)
	Horses	Mules	Dairy cows	Sheep	Swine	Chickens	Turkeys	
1940.....	10,444	4,034	24,940	52,107	61,165	438,288	8,569	3,791
1945.....	8,715	3,235	27,770	46,520	59,373	516,497	7,082	6,050
1946.....	8,082	3,027	26,521	42,362	61,306	523,227	7,862	6,431
1947.....	7,340	2,789	25,842	37,489	56,810	467,217	5,879	7,813
1948.....	6,704	2,575	24,615	34,337	54,590	449,644	3,959	8,297
1949.....	6,096	2,402	23,862	30,943	56,257	430,876	4,622	8,659
1950.....	5,548	2,233	23,853	29,826	58,852	456,549	5,124	7,481
1951.....	4,993	2,074	23,722	30,635	62,852	442,657	5,091	9,149
1952.....	4,370	1,923	23,407	31,725	63,903	453,498	5,835	9,722

Agricultural
Co-operatives

Source: Farm Credit Administration.

Market- ing season	Number	Estimated membership (thousands)	Business (in millions of dollars)
1915.....	5,424	651	636
1925-26.....	10,803	2,700	2,400
1929-30.....	12,000	3,100	2,500
1933-34.....	10,900	3,156	1,365
1934-35.....	10,700	3,280	1,530
1935-36.....	10,500	3,660	1,840
1936-37.....	10,743	3,270	2,196
1937-38.....	10,900	3,400	2,400
1938-39.....	10,700	3,300	2,100
1939-40.....	10,700	3,200	2,087
1940-41.....	10,600	3,400	2,280
1941-42.....	10,550	3,600	2,840
1942-43.....	10,450	3,850	3,780
1943-44.....	10,300	4,250	5,160
1944-45.....	10,150	4,505	5,645
1945-46.....	10,150	5,010	6,070
1946-47.....	10,125	5,436	7,116
1947-48.....	10,135	5,900	8,635
1948-49.....	10,075	6,384	9,320
1949-50.....	10,035	6,584	8,726

Source: U. S. Department of Agriculture.

Civilian Consumption of
Principal Foods
(in pounds per capita)

Source: U. S. Bureau of Agri. Economics.

Foods	1935-39 avg.	1950	1951
Red meats.....	126.2	143.5	137.7
Poultry meats.....	20.5	31.3	34.0
Eggs.....	298	386	397
Fluid milk and cream.....	340	385	395
Cheese.....	5.5	7.7	7.2
Butter.....	16.7	10.7	9.7
Fats and oils.....	31.9	38.3	35.7
Fresh fruits.....	138.5	108.6	119.4
Processed fruits.....	25.4	43.2	42.9
Fresh vegetables.....	235	252	254
Processed vegs.†.....	30.3	45.1	45.6
Potatoes, sweetpots.....	152.4	116.8	110.5
Sugar.....	97.0	95.5	96.3
Corn products.....	37.5	33.2	32.2
Wheat flour.....	159	133	133
Coffee.....	14.0	16.1	16.4
Tea.....	.67	.60	.57
Cocoa.....	4.4	4.3	4.0

* Number, not pounds. † Excludes butter. ‡ Pack year.

Agricultural Output by States, 1950 Crops

(In thousands of bushels; except cotton lint in thousands of 500 pounds gross weight bales, and tobacco in thousands of pounds) Source: U. S. Department of Agriculture.

State	Wheat	Corn	Oats	Barley	Cotton lint	Potatoes	Tobacco
Alabama.....	126	46,303	2,052	.....	924	4,216	630
Arizona.....	572	320	369	4,900	809	1,387	.....
Arkansas.....	279	23,218	3,050	72	1,253	1,106	.....
California.....	9,741	2,312	4,320	42,360	1,760	34,605	.....
Colorado.....	34,967	15,782	5,820	9,541	.....	11,475	.....
Connecticut.....	.....	1,710	124	.....	.....	2,252	22,353
Delaware.....	1,189	5,735	256	341	.....	700	.....
Florida.....	.....	9,616	500	.....	18	6,321	32,392
Georgia.....	1,794	49,536	10,296	90	931	483	137,361
Idaho.....	37,968	1,962	8,022	10,432	.....	37,520	.....
Illinois.....	33,383	491,865	133,600	868	1	825	.....
Indiana.....	23,529	241,415	50,875	494	.....	3,360	13,850
Iowa.....	2,212	471,780	182,886	693	.....	1,040	.....
Kansas.....	126,113	58,296	14,346	1,547	.....	368	92
Kentucky.....	3,568	80,662	2,136	1,192	4	1,960	460,370
Louisiana.....	.....	16,307	1,204	.....	764	744	264
Maine.....	.....	540	5,016	192	.....	45,835	.....
Maryland.....	5,371	20,430	1,980	2,470	.....	1,230	41,600
Massachusetts.....	.....	1,692	200	.....	.....	1,886	10,317
Michigan.....	30,800	69,056	60,183	3,876	.....	10,800	.....
Minnesota.....	20,022	215,038	212,764	38,555	.....	11,900	450
Mississippi.....	244	38,141	3,335	.....	1,606	522	.....
Missouri.....	22,406	132,022	27,738	1,075	.....	1,456	4,000
Montana.....	68,988	2,392	10,200	12,880	.....	2,150	.....
Nebraska.....	58,073	187,620	60,816	4,620	.....	6,000	.....
Nevada.....	502	120	320	816	.....	364	.....
New Hampshire.....	.....	602	180	.....	.....	975	.....
New Jersey.....	2,106	9,712	1,638	684	.....	7,476	.....
New Mexico.....	1,094	1,116	518	430	259	144	.....
New York.....	10,319	28,116	36,240	2,516	.....	27,900	420
North Carolina.....	8,763	67,611	14,271	1,260	550	6,909	998,990
North Dakota.....	150,975	23,332	56,811	51,336	.....	15,580	.....
Ohio.....	34,308	169,536	49,979	494	.....	5,750	26,222
Oklahoma.....	38,902	21,156	4,768	198	456	526	.....
Oregon.....	28,999	1,092	7,395	10,110	.....	11,220	.....
Pennsylvania.....	18,832	60,766	32,340	5,416	.....	16,215	56,186
Rhode Island.....	.....	287	32	.....	.....	1,060	.....
South Carolina.....	3,500	26,320	16,128	400	866	1,937	175,560
South Dakota.....	57,260	85,624	116,365	19,693	.....	1,650	.....
Tennessee.....	3,022	60,360	4,732	980	531	1,539	143,214
Texas.....	17,307	42,143	8,145	518	4,092	2,204	.....
Utah.....	9,081	1,147	1,886	6,072	.....	2,316	.....
Vermont.....	.....	2,788	1,476	33	.....	738	.....
Virginia.....	7,497	41,624	4,818	2,624	12	6,882	176,788
Washington.....	75,152	1,102	6,670	3,384	.....	11,600	.....
West Virginia.....	1,073	8,580	1,600	286	.....	1,575	4,278
Wisconsin.....	1,856	103,759	143,302	6,633	.....	9,805	22,889
Wyoming.....	6,750	780	4,694	4,587	.....	1,202	.....
Total.....	987,474	2,941,423	1,316,396	254,668	15,144	325,708	2,328,226

U. S. Farm Index

(1910-14 = 100)

Source: U. S. Department of Agriculture

Year	Prices paid by farmers*	Farm Wage Rate	Prices rec'd by farmers†
1935-39 aver....	125	121	107
1946.....	207	387	234
1947.....	240	419	275
1948.....	259	442	285
1950.....	255	425	256
1951.....	281	470	302
1952†.....	288	504	292

* Commodities, interest and taxes and wage rates.

† All crops and livestock. ‡ Average first 6 months.

Farm Tenancy

Source: U. S. Bureau of the Census

Year	Farms operated by tenants (in thousands)	Total farms	Tenancy as % of total
1880.....	1,025	4,009	25.6
1890.....	1,295	4,565	28.4
1900.....	2,025	5,737	35.3
1910.....	2,355	6,362	37.0
1920.....	2,455	6,448	38.1
1930.....	2,664	6,289	42.4
1940.....	2,361	6,097	38.7
1945.....	1,858	5,869	31.7
1950.....	1,444	5,382	26.8

WHAT COMMERCE DISTRIBUTES

In a mass-production economy, distribution is a highly intricate process, and commerce, like industry and agriculture, has made new records during the past decade. However, important changes have modified this segment of the nation's business. Sudden shifts in consumer preference, as between hard goods and soft goods, have profoundly affected the pattern of retail trade. Service industries have been chalking up a record of steadily growing volume. Transportation reflects substantial changes in American preference in shipping and traveling.

Wholesale and Retail Trade: No. of Establishments, 1939 and 1948

Source: Bureau of Census, Department of Commerce.

Kind of business group	No. of establishments		Kind of business group	No. of establishments	
	1939	1948		1939	1948
Retail trade, total.....	1,770,355	1,771,317	Drugs, chemicals, allied products	3,298	4,671
Food group.....	560,549	504,902	Tobacco and products (except leaf).....	2,717	3,019
Eating and drinking places.....	305,386	346,677	Dry goods, apparel.....	8,275	11,733
General stores.....	39,688	21,566	Furniture, home furnishings.....	2,214	3,813
General merchandise group.....	50,267	52,741	Paper and its products.....	2,898	4,044
Apparel group.....	106,959	115,707	Farm products—raw materials.....	2,086	2,594
Furniture, furnishings, appliance group.....	52,827	85,680	Automotive.....	7,818	14,693
Automotive group.....	60,132	86,194	Electrical goods.....	3,072	5,443
Gasoline service stations.....	241,858	188,301	Hardware, plumbing, heating.....	3,568	5,901
Lumber, building, hardware group.....	79,313	99,043	Lumber, construction materials.....	3,303	5,890
Drug and proprietary stores.....	57,903	55,903	Machinery equipment & supplies	11,270	21,430
Liquor.....	19,136	33,460	Metals, metalwork (except scrap)	1,017	1,803
Secondhand stores.....	23,962	16,969	Waste materials.....	6,059	7,717
Other retail stores.....	172,375	164,174	Other merchant wholesalers.....	10,558	15,658
Wholesale trade, total.....	199,726	243,366	Manufacturers' sales branches, offices.....	17,926	23,768
Merchant wholesalers, total.....	100,961	146,518	Petroleum bulk stations, terminals.....	30,825	29,451
Groceries, confectionery, meats.....	15,681	17,345	Agents, brokers.....	21,083	24,361
Farm products.....	10,945	13,539	Assemblers (mainly farm products)	28,931	19,268
Beer, wines, distilled spirits.....	6,232	7,195			

Sales of Leading Retail Outlets

Source: Moody's Manual of Industrials.

1951 Sales* (in thousands)		1951 Sales* (in thousands)	
DEPARTMENT STORES		DRUG STORES	
J. C. Penney Co.	\$1,053,202	Walgreen Co.	\$ 170,539
Allied Stores Corp.	476,693	United-Rexall Drug, Inc.	164,278
May Department Stores Co.	424,991	Sterling Drug Co.	153,222
Federated Department Stores	408,844	People's Drug Store, Inc.	50,665
Gimbel Bros., Inc.	298,522		
Marshall Field & Co.	225,589	SHOE STORES	
		Endicott Johnson Corp.	157,317
VARIETY STORES		Melville Shoe Co.	92,741
F. W. Woolworth Co.	684,180	Edison Bros. Stores, Inc.	77,980
S. S. Kresge Co.	310,978	A. S. Beck Shoe Corp.	64,778
W. T. Grant Co.	268,333	G. R. Kinney Co.	43,078
S. H. Kress & Co.	172,391	Florsheim Shoe Co.	28,477
G. C. Murphy Co.	168,898	Miles Shoes, Inc.	26,583
J. J. Newberry Co.	161,267		
McCrory Stores Corp.	104,222	MAIL-ORDER HOUSES	
		Sears-Roebuck & Co.	2,657,408
GROCERY STORES		Montgomery Ward & Co.	1,106,157
Great Atlantic & Pacific Tea Co.	3,179,792	Spiegel, Inc.	146,308
Safeway Stores, Inc.	1,454,643		
Kroger Co.	997,086	FURNITURE STORES	
First National Stores, Inc.	371,853	Barker Bros. Corp.	30,655
American Stores Co.	469,771	W. & J. Sloane	25,014
		Reliable Stores Corp.	24,470
		Spear & Co.	16,927
		Sterchl Bros. Stores, Inc.	12,779
		Sterling, Inc.	8,657

* For accounting year ending in 1951.

Retail Sales by Kind of Business Group

(In millions of dollars)

Source: U. S. Bureau of the Census.

Kind of business group	1939	1941	1945	1947	1948	1949	1950	1951	1952*
Durable goods stores.....	11,312	17,213	16,026	36,652	41,876	43,882	52,793	51,882	21,490
Automotive group.....	5,549	8,889	5,855	17,082	20,104	22,940	28,289	26,465	11,006
Motor vehicle dealers.....	5,025	8,185	5,000	15,804	18,744	21,669	26,702	24,783	10,276
Parts and accessories.....	524	704	855	1,278	1,360	1,271	1,587	1,682	730
Building materials and hardware group	2,390	3,347	3,739	7,688	8,766	8,237	10,092	10,722	4,385
Lumber and building materials.....	1,761	2,442	2,502	5,433	6,272	5,895	7,458	7,798	3,136
Hardware.....	629	905	1,237	2,255	2,494	2,342	2,634	2,924	1,249
Home furnishings group.....	1,733	2,576	2,740	6,353	6,914	6,790	8,249	7,863	3,162
Furniture and house furnishings.....	1,200	1,780	2,101	4,042	4,371	4,155	4,847	4,850	2,033
Household appliances and radios.....	533	796	639	2,311	2,543	2,635	3,402	3,013	1,131
Jewelry.....	362	566	997	1,247	1,225	1,136	1,174	1,170	489
Other durables.....	1,278	1,835	2,695	4,282	4,867	4,779	4,989	5,662	2,448
Nondurable goods stores.....	30,730	38,061	62,008	82,952	88,645	86,839	90,754	98,707	42,235
Apparel group.....	3,259	4,137	7,689	9,294	9,803	9,332	9,333	9,856	4,165
Men's clothing and furnishings.....	840	1,076	1,769	2,309	2,309	2,183	2,175	2,249	926
Women's apparel and accessories.....	1,323	1,635	3,338	3,638	3,961	3,698	3,606	3,846	1,633
Family and other apparel.....	479	700	1,442	1,904	2,066	1,997	2,041	2,155	931
Shoes.....	617	726	1,140	1,443	1,467	1,454	1,511	1,606	675
Drug Stores.....	1,563	1,847	3,155	3,867	4,013	4,037	4,166	4,478	1,918
Eating and drinking places.....	3,526	4,570	9,575	10,651	10,683	10,470	10,626	11,321	4,942
Food group.....	10,156	12,244	19,233	28,434	30,966	30,965	32,768	36,940	16,066
Grocery and combination.....	7,722	9,312	14,593	22,501	24,770	24,800	26,412	29,816	12,999
Other food.....	2,434	2,932	4,640	5,933	6,196	6,165	6,356	7,124	3,067
Gasoline service stations.....	2,822	3,466	3,284	5,482	6,483	6,957	7,553	8,390	3,612
General merchandise group.....	6,475	7,973	11,802	16,053	17,135	16,307	17,235	18,030	7,392
Department, including mail order.....	3,872	4,862	7,092	10,055	10,645	10,018	10,638	10,962	4,463
Other general mdse. and dry goods.....	1,080	1,320	1,845	2,322	2,507	2,506	2,587	2,782	1,169
Variety.....	1,523	1,791	2,865	3,676	3,983	3,783	4,010	4,286	1,760
Other retail stores.....	2,926	3,824	7,270	9,171	9,562	8,771	9,073	9,692	4,140
Liquor.....	586	854	2,288	2,649	2,580	2,474	2,550	2,789	1,145
Other.....	2,340	2,970	4,982	6,522	6,982	6,297	6,523	6,903	2,994
All retail stores.....	42,042	55,274	78,034	119,604	130,521	130,721	143,547	150,589	63,725

* First 5 months, adjusted for seasonal variation.

Wholesale Sales

(In millions of dollars)

Source: U. S. Department of Commerce.

Type of establishment	1939	1941	1945	1947	1948	1949	1950	1951
Merchant wholesalers.....	22,550	31,140	44,082	73,279	79,815	72,460	82,128	89,907
Durable goods.....	6,272	10,176	10,881	24,428	27,431	24,266	30,652	33,963
Automotive.....	1,055	1,382	1,496	3,784	4,093	3,926	4,653	4,956
Lumber and building material.....	1,265	2,087	2,216	5,012	5,972	5,338	6,836	7,275
Electrical goods.....	788	1,432	1,200	3,677	4,425	4,099	5,455	5,545
Hardware.....	592	886	937	1,909	2,014	1,719	2,098	2,224
Housefurnishings.....	380	534	627	1,299	1,337	1,235	1,625	1,518
Jewelry.....	234	334	593	865	799	688	761	764
Machinery and metals.....	1,958	3,521	3,812	7,882	8,791	7,261	9,224	11,681
Nondurable goods.....	16,278	20,964	33,201	48,851	52,384	48,194	51,476	55,944
Apparel and dry goods.....	1,889	2,669	3,611	5,747	5,729	4,838	5,197	5,140
Beers, wines and liquors.....	1,249	1,662	3,520	4,135	4,070	4,075	4,485	4,607
Drugs and sundries.....	521	654	1,063	1,350	1,370	1,382	1,482	1,655
Food.....	6,055	7,884	12,147	16,412	18,869	17,238	18,088	19,598
Paper and its products.....	575	739	909	1,828	1,902	1,723	2,013	2,400
Tobacco products.....	1,106	1,174	1,811	2,445	2,530	2,506	2,481	2,577
All other.....	4,883	6,182	10,140	16,934	17,914	16,432	17,730	19,967
All establishments.....	26,244	36,394	53,708	87,263	95,172	86,817	96,782	105,761
Durable goods.....	6,272	10,176	10,881	24,428	27,431	24,266	30,652	33,963
Nondurable goods.....	19,972	26,218	42,827	62,835	67,741	62,551	66,130	72,798

Chain Stores vs. Independent Stores (in millions of dollars)

	1939	1941	1945	1947	1948	1949	1950	1951	1952*
Chain store & mail order.....	9,570	12,635	17,280	26,958	29,737	29,041	31,232	34,000	17,144
Independent.....	32,472	42,639	60,754	92,646	100,784	101,680	112,315	118,975	77,114
Total sales.....	42,042	55,274	78,034	119,604	130,521	130,721	143,547	152,975	94,258
Chains as percent of total.....	22.8	22.9	22.1	22.5	22.8	22.2	21.8	22.2	18.2

* First 7 months, adjusted for seasonal variation; new series, chain stores now include only those firms with 11 or more stores.

Monthly Average Railroad Carloadings (in thousands of cars)

Source: Association of American Railroads.

Year	Total*	Coal, coke & ore	Grain & products	Less-than-carload merchandise
1920.....	3,760	1,095	154	751
1925.....	4,269	962	192	1,099
1929.....	4,402	1,001	200	1,100
1932.....	2,348	482	138	756
1939.....	2,826	676	162	653
1941.....	3,524	913	169	670
1943.....	3,535	1,001	222	423
1944.....	3,674	1,043	213	459
1945.....	3,492	955	228	461
1946.....	3,445	882	208	528
1947.....	3,708	1,039	227	506
1948.....	3,643	1,044	209	464
1949.....	2,992	751	216	382
1950.....	3,242	875	205	356
1951.....	3,437	964	219	328
1952†.....	3,089	799	204	310

* Includes forest products, livestock & miscellaneous group not listed separately. † First six months.

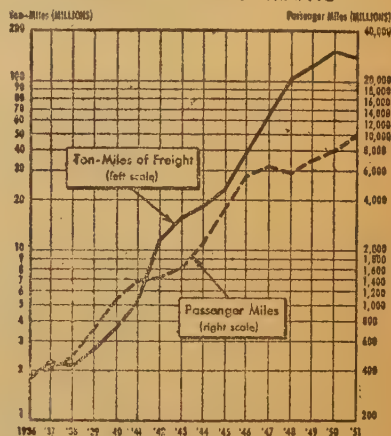
Class I Steam Railways*

Source: Association of American Railroads and the Interstate Commerce Commission.

	1920	1930	1940	1948	1950	1951 ¹
Av. first-track mileage operated.....	234,668	242,158	232,749	226,903	226,296	225,821
Passengers carried (thousands).....	1,234,862	703,598	452,921	642,781	486,194	483,833
Passenger revenue (thousand dollars).....	1,286,613	728,488	417,269	964,303	813,417	900,310
Average journey per passenger (miles).....	37.94	38.11	52.46	64.1	65.3	71.5
Total tons revenue freight carried (thousands).....	2,259,983	2,063,078	1,843,290	2,847,897	2,570,153	2,809,744
Freight revenue (thousand dollars).....	4,328,288	4,083,242	3,537,150	7,976,285	7,817,263	8,634,101
Operating revenues (thousand dollars).....	6,178,439	5,281,197	4,296,601	9,671,722	9,473,093	10,390,611
Operating expenses (thousand dollars).....	5,827,591	3,930,929	3,089,417	7,472,035	7,059,276	8,041,277
Net railways operating income (thousand dollars).....	17,227	868,879	682,134	1,002,011	1,039,706	942,542
Net capitalization, all carriers (million dollars).....	16,994	19,066	17,630	15,467	15,618	(?)
Average number of employees (Class I railways).....	2,022,832	1,487,839	1,026,848	1,326,597	1,220,784	1,276,000
Total compensation per year (thousand dollars).....	3,681,801	2,550,789	1,964,125	4,768,828	4,593,688	5,274,594
Roads under receivership and trusteeship ²	61	30	103	46	42	42 ³
Miles of roads under rec. and trusteeship ²	16,290	9,486	75,270	13,283	12,470	12,470 ⁴
Number of locomotive units—Dec. 31.....	64,746	56,582	41,721	41,851	40,494	39,882
Number of freight-train cars—Dec. 31.....	2,350,707	2,305,741	1,675,080	1,783,363	1,744,625	1,776,429
Number of pass.-train cars—Dec. 31.....	53,501	52,130	37,817	39,142	37,146	36,773

* Yearly operating revenues above one million dollars. ¹ Preliminary. ² Data not available. ³ Class I, II and III railroads. ⁴ as of June 30, 1951.

DOMESTIC AIRLINES' TRAFFIC



SOURCE: CIVIL AERONAUTICS ADMINISTRATION

WHAT SERVICES CONTRIBUTE

Manufacturing and agriculture can grow steadily more efficient only because they take advantage of various types of business, professional and scientific services. For example, mass production would be impossible without modern accounting systems; and large-scale agriculture could hardly exist without scientific crop and weather services.

Personal services are the remaining stronghold of small, individual enterprise. The service industries are the only ones where small business produces half the total output. With growing consumer acceptance, these trades promise to offer a continued incentive for independent, small ventures.

But there are big as well as small businesses among the service industries. Financing of the nation's business and much of its government is made possible by the highly organized financial services. Insurance is another field where big as well as small firms fill our steadily increasing demand for all forms of protection.

Through ownership of stocks, bonds, life insurance and savings accounts we all contribute and have a stake in this financing of our complex economic machinery. Contrary to the steady advance of almost all other indices, however, stock and bond yields to the investor have declined steadily throughout the war and have only in recent years begun to stabilize.

Number of Service Establishments and Places of Amusement, 1939 and 1948

Source: U. S. Department of Commerce.

Kind of business	No. of establishments		Kind of business	No. of establishments	
	1939	1948		1939	1948
PERSONAL SERVICES:					
Barber shops.....	117,998	91,993	Electrical repair shops.....	15,644	19,440
Barber and beauty shops.....	4,199	2,591	Jewelry, watch, clock repair.....	12,485	12,750
Baths and masseurs.....	1,600	1,305	Leather goods repair.....	2,168	560
Beauty parlors.....	83,071	74,497	Locksmiths and gunsmiths.....	2,252	1,518
Cleaning and dyeing plants.....	12,616	25,534	Musical instrument repair.....	982	789
Costume and dress suit rental.....	417	510	Radio repair.....	10,732	12,558
Diaper service.....	n.a.	384	Refrigerator repair.....	1,297	2,531
Funeral service, crematories.....	18,196	18,675	Saw, knife and tool sharpening and repair.....	1,451	1,304
Fur repair and storage.....	2,180	2,334	Sewing machine repair.....	355	488
Hat cleaning.....	1,228	1,426	Stove repair.....	365	207
Laundries, all types.....	22,736	19,182	Taxidermists.....	363	211
Linen supply service.....	718	1,176	Tool repair.....	1,451	1,304
Photographic studios.....	10,957	14,712	Typewriter repair.....	618	638
Rug cleaning and repairing.....	1,012	1,517	Upholstery, furniture.....	9,685	10,297
Shoe repair shops.....	50,115	44,151	Welding shops.....	4,118	3,536
Shoe shine parlors.....	7,968	2,962	OTHER SERVICES:		
BUSINESS SERVICES:			Hotels.....	27,987	29,650
Advertising agencies.....	1,628	3,279	Tourist courts and camps.....	13,521	25,919
Auctioneers.....	970	670	AMUSEMENT PLACES:		
Blueprinting and photostat.....	500	672	Amusement devices.....	1,093	1,604
Coin-operated machine.....	1,554	1,302	Amusement parks.....	245	368
Consumer credit reporting.....	2,576	2,652	Bands, orchestras, entertainers.....	550	2,026
Detective agencies.....	280	603	Bathing beaches (not municipal)....	344	261
Disinfecting, exterminating.....	952	1,393	Bicycle rentals.....	247	147
Employment agencies.....	1,424	2,231	Billiard and pool parlors.....	12,998	9,661
Interior decorating.....	461	601	Boat and canoe rental.....	1,382	1,587
Mailing services.....	1,433	1,394	Bowling alleys.....	4,646	4,505
News syndicates.....	n.a.	77	Clubs, baseball.....	276	357
Outdoor advertising.....	649	798	Clubs, football.....	n.a.	21
Photo finishing laboratories.....	1,201	1,703	Dance halls, studios, schools.....	2,191	1,074
Public stenographers.....	1,329	1,036	Race tracks, automobile.....	36	112
Sign painting shops.....	5,391	4,283	Race tracks, dog.....	11	15
Telephone answering service.....	n.a.	367	Race tracks, horse.....	45	71
Window cleaning service.....	823	1,260	Riding academies.....	840	709
Window display services.....	215	279	Shooting galleries.....	324	181
REPAIR SERVICES:			Skating rinks, ice.....	59	42
Automotive repair services and garages.....	78,881	95,544	Skating rinks, roller.....	1,134	1,382
Automobile rentals.....	648	1,011	Sports and athletic fields.....	188	211
Automobile storage, parking.....	11,095	8,533	Sports promoters, commercial operators.....	n.a.	6,518
Armature rewinding shops.....	978	2,023	Swimming pools (not municipal)....	668	499
Bicycle repair shops.....	1,601	1,283	Theaters, motion pictures.....	15,115	17,689
Blacksmith shops.....	16,797	8,249	Theaters and theatrical producers..	231	1,426
NOTE: n.a.—not available					

NOTE: n.a.—not available

Hotels

Source: Horwath & Horwath.

Year	Percent of rooms occupied	Average sale per occupied room (\$)	Restaurant sales (1929 = 100)
1929.....	70	4.04	100
1933.....	51	2.88	49
1939.....	62	3.31	90
1945.....	91	4.06	200
1947.....	90	4.77	230
1949.....	82	5.47	219
1950.....	81	5.71	223
1951.....	79	6.28	236
1952*.....	78	6.39	245

* First 5 months.

Cost of Advertising Facilities

Source: U. S. Dept. of Commerce.

Monthly average	Radio (in thousands of dollars)	Magazine
1933.....	2,626	8,155
1939.....	6,926	12,587
1941.....	8,845	15,007
1945.....	15,896	25,531
1947.....	15,911	37,340
1949.....	15,650	41,692
1950.....	15,293	43,589
1951.....	14,568	47,613
1952*.....	14,109	51,289

* Average first 5 months, preliminary.

New York Stock Exchange Sales

Source: Commercial & Financial Chronicle, New York Stock Exchange.

Year	Stocks, millions of shares	Bonds, par val. (millions of dollars)			
		Total	Corporate	U. S. government	State, municipal, foreign
1919.....	317	3,809	622	2,901	286
1929.....	1,125	2,982	2,182	142	658
1932.....	425	2,967	1,642	570	755
1939.....	262	2,046	1,480	311	255
1941.....	171	2,112	1,929	20	163
1943.....	279	3,255	3,130	4	120
1945.....	378	2,262	2,148	8	106
1947.....	254	1,076	970	3	102
1949.....	272	818 ²	725 ²	(⁴)	93 ²
1950.....	525	1,112 ²	1,008 ²	2	102 ²
1951.....	444	824 ²	730 ²	2	91 ²
1952 ¹	197	422 ²	377 ²	1	44 ²

¹ Jan. 1-Aug. 1.² Includes International Bank.³ Railroad and industrial.⁴ Less than 1.⁵ Foreign.

Stock Prices per Share*

Dow-Jones & Co., Inc. Averages

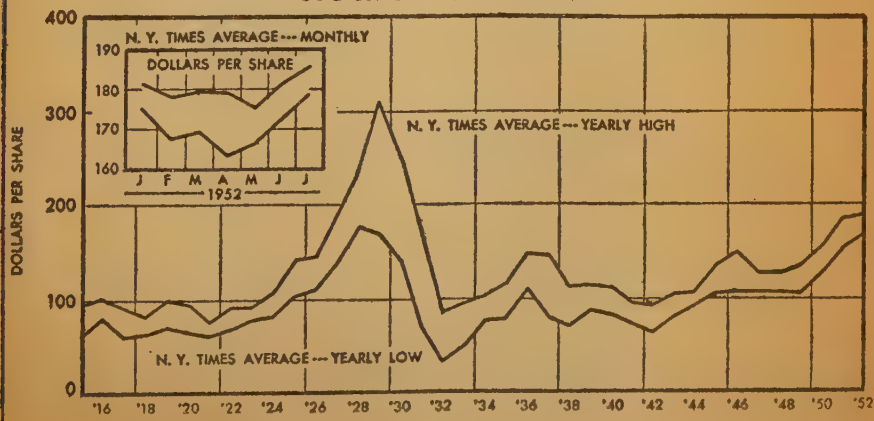
(in dollars)

Year	Total (65)	Industrials (30)	Public utilities (15)	Railroads (20)
1929.....	125.43	311.24	104.48	159.66
1932.....	26.82	64.57	26.89	27.46
1939.....	48.01	142.66	24.43	30.01
1941.....	41.22	121.82	18.02	28.36
1942.....	36.04	107.20	12.63	26.38
1943.....	46.39	134.81	19.82	33.71
1945.....	63.72	169.82	32.15	56.56
1947.....	63.31	177.58	35.06	48.14
1948.....	66.32	179.95	34.03	56.73
1949.....	64.37	179.48	36.44	47.77
1950.....	77.69	215.47	41.20	60.72
1951.....	93.98	235.46	44.03	81.88
1952 ¹	100.52	265.65	49.75	91.09

* Averages of daily closings.

¹ First 6 months.

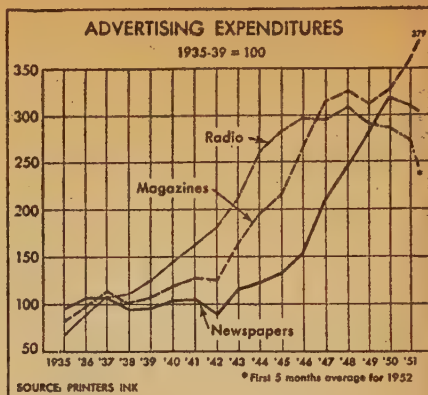
STOCK MARKET TREND



Advertising Media, 1951

Source: Printers' Ink.

Medium	Volume (in millions of dollars)	% of total
Newspapers.....	2,257.7	34.7
Radio.....	712.3	10.9
Magazines.....	573.7	8.9
Direct mail.....	973.7	14.2
Business papers.....	292.1	4.5
Outdoor.....	149.2	2.4
Farm papers.....	25.7	.4
Television.....	388.4	6.0
Miscellaneous.....	1,173.7	18.0
Total.....	6,496.5	100.0



Stock and Bond Yields—Percent

Year	Bonds							Stocks				
	U. S. Treas- ury (Treas- ury Dept.)*	Mu- nicipal (Bond Buyer) (20 cities)	Corporate (Moody's Inves- tors' Service)				Muni- cipal (Stand- ard and Poor's Corp.) (15)	Preferred (Standard and Poor's Corp.) (15)	Common (Moody's Inves- tors' Service)			
			Total	Indus- trial	Rail- road	Public utility			Total (200)†	Indus- trial (125)	Rail- road (25)	Public utility (24)
1929.....		4.31	5.21	5.31	5.18	5.14	4.27	5.12	3.5	4.0	4.4	2.1
1932.....		4.79	6.87	6.71	7.61	6.30	4.65	6.13	7.4	7.3	6.3	7.5
1939.....		2.83	3.77	3.30	4.53	3.48	2.76	4.17	4.2	3.9	3.7	5.3
1941.....		2.14	3.34	2.95	3.95	3.11	2.10	4.08	6.2	6.3	6.5	8.0
1943.....	2.47	1.93	3.16	2.85	3.64	2.99	2.06	4.06	4.8	4.5	6.9	6.8
1945.....	2.37	1.50	2.87	2.68	3.06	2.89	1.67	3.70	4.1	4.0	5.5	5.0
1947.....	2.25	1.89	2.86	2.67	3.11	2.78	2.01	3.79	5.1	5.0	6.4	5.3
1948.....	2.44	2.37	3.08	2.87	3.34	3.03	2.40	4.15½	5.8	5.9	6.0	5.9
1949.....	2.31	2.15	2.96	2.74	3.24	2.90	2.21	3.97½	6.6	6.8	8.5	5.9
1950.....	2.32	1.90	2.86	2.66	3.10	2.82	1.97	3.85½	6.3	6.5	6.5	5.7
1951.....	2.57	1.97	3.08	2.89	3.26	3.09	2.00	4.11	6.1	6.3	6.3	5.8
1952†.....	2.66	2.08	3.18	2.98	3.36	3.20	2.06	4.13	5.6	5.7	6.0	5.5

* Taxable, 15 years and over; beginning April 1, 1952, 12 years. † Includes 15 banks and 10 insurance stocks.
 ‡ Average of first 6 months. § Data for Aug.-Sept. based on 14 stocks; from Oct., 1948 based on 11 stocks.

Note: Figures in parentheses represent number of issues.

Federal Reserve System, All Member Banks, Principal Assets and Liabilities*

(all money figures in millions of dollars)

Source: Federal Reserve Board.

	1925	1930	1935	1940	1945	1950	1951	1952†
Loans.....	21,996	23,870	12,175	15,321	22,775	44,705	49,561	53,955
U. S. Gov't obligations.....	3,728	4,125	12,268	15,823	78,338	52,365	51,621	51,430
Other security investments.....	5,160	6,864	5,541	5,982	6,070	13,355	11,065	11,641
Total deposits‡.....	34,250	37,029	38,454	56,430	129,670	133,089	141,015	137,257
Demand deposits.....	19,124	18,796	21,056	33,829	91,820	90,306	95,968	93,147
Time deposits.....	10,557	13,012	10,041	12,178	24,210	29,336	30,623	31,559
Capital accounts.....	4,678	6,593	5,145	5,698	7,589	9,695	10,218	13,173
Number of banks.....	9,489	8,052	6,387	6,486	6,884	6,373	6,840	6,323

* End of year. † As of June 25. ‡ Includes interbank deposits, domestic and foreign, and U. S. Government and Postal Savings deposits.

Bank Debits to Deposit Accounts (except interbank)* (in millions of dollars)

Source: Board of Governors of Federal Reserve System.

1929.....	935,030	1941.....	491,649	1947.....	1,005,568	1950.....	1,256,428
1932.....	322,365	1943.....	715,782	1948.....	1,116,936	1951.....	1,405,939
1939.....	389,677	1945.....	884,303	1949.....	1,101,873	1952†.....	738,408

* Includes 141 leading cities.

† First 6 months.

Money and Interest Rates (Per cent per annum)

Source: Federal Reserve Board.

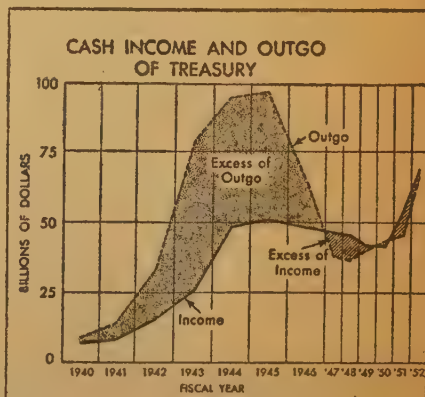
Year	Open market rate in New York City			Commercial loan rates		
	Prime commercial paper, 4 to 6 months*	Prime bankers' acceptances, 90 days*	Call loans, renewal rate†	New York City	7 other northern & eastern cities	11 southern & western cities
1929.....	5.85	5.03	7.61	5.76	5.82	5.93
1932.....	2.73	1.28	2.05	4.20	4.81	5.21
1933.....	1.73	.63	1.16	3.43	4.46	5.04
1935.....	.76	.13	.56	1.76	3.39	3.76
1937.....	.94	.43	1.00	1.73	2.88	3.25
1938.....	.81	.44	1.00	1.69	2.75	3.26
1939.....	.59	.44	1.00	2.07	2.87	3.51
1940.....	.56	.44	1.00	2.04	2.56	3.38
1941.....	.54	.44	1.00	1.97	2.55	3.19
1942.....	.66	.44	1.00	2.07	2.58	3.26
1943.....	.69	.44	1.00	2.30	2.80	3.13
1944.....	.73	.44	1.00	2.11	2.68	3.02
1945.....	.75	.44	1.00	1.99	2.51	2.73
1946.....	.81	.61	1.16	1.82	2.43	2.85
1947.....	1.03	.87	1.38	1.81	2.33	2.76
1948.....	1.44	1.11	1.55	2.22	2.57	2.95
1949.....	1.48	1.12	1.63	2.37	2.71	3.10
1950.....	1.45	1.15	1.63	2.36	2.68	3.19
1951.....	2.17	1.60	2.17	2.83	3.09	3.52
1952†.....	2.35	1.75	2.39	3.25	3.47	3.85

* Prevailing rate. † New York Stock Exchange; average of daily quotations. ‡ First six months.

Assets and Liabilities, Active Banks in U. S., Dec. 31, 1951 (in millions of dollars except no. of banks) Source: U. S. Treasury Department.

	All banks	Commercial banks*	Mutual savings banks
Number of banks.....	14,636	14,107	529
Loans and discounts.....	68,001	58,139	9,862
Investments.....	87,586	75,189	12,398
Cash and balances with other banks.....	45,717	44,830	886
Total assets.....	203,863	180,424	23,439
Capital, surplus, and undivided profits.....	14,796	12,299	2,407
Total deposits.....	186,604	165,688	20,915
Demand.....	126,680	126,654	26
Time.....	59,924	39,035	20,889

* Comprises national banks, state commercial banks and private banks.



Insurance Premiums and Losses

(in thousands of dollars)

Source: *The Spectator*, Philadelphia, Pa., and National Board of Fire Underwriters.

Type	1939	1943	1945	1946	1947	1948	1949	1950
Casualty, surety, and miscellaneous companies								
Net premiums written...	1,191,838	1,703,797	1,631,649	2,011,262	2,591,065	3,071,838	6,222,861†	6,813,660†
Losses paid†...	484,343	659,365	799,193	1,006,954	1,208,360	1,425,594	2,435,651†	2,785,712†
Fire and marine insurance business*								
Net premiums written...	907,003	1,334,491	1,555,935	2,042,435	2,453,421	2,740,726	\$	\$
Losses paid†...	404,800	560,175	748,664	896,153	1,064,316	1,195,472	\$	\$
Total fire losses in United States.....	313,499	380,235	455,329	561,487	682,635	711,114	667,536	683,460

* U. S. and outlying territories and possessions. † Includes adjustment expenses. ‡ Aggregate of 922 insurance companies excluding life insurance. § Included in above figures.

Life Insurance—Financial Condition and Policy Accounts of U. S. Companies

(in millions of dollars)

Source: *Spectator Yearbook* and Institute of Life Insurance.

Year	Assets (admitted) Dec. 31	Total income	Premium income	Payment to policyholders
1880.....	453	81	....	56
1890.....	771	197	158	90
1900.....	1,742	401	325	169
1910.....	3,876	781	593	387
1920.....	7,320	1,764	1,385	745
1929.....	17,482	4,337	3,350	1,962
1932.....	20,754	4,653	3,504	3,087
1939.....	29,243	5,453	3,825	2,642
1943.....	37,766	6,442	4,421	2,365
1945.....	44,797	7,674	5,249	2,667
1947.....	51,743	9,114	6,762	2,971
1948.....	55,512	9,751	7,275	3,237
1949.....	59,630	10,376	7,635	3,478
1950.....	64,020	11,337	8,319	3,731
1951.....	68,292	12,100	9,200	3,985

Life Insurance in Force in U. S.

(millions of dollars)

Source: *Spectator Yearbook* and Institute of Life Insurance.

Year	Ordinary	Group	Industrial	Total
1910.....	11,795	....	2,977	14,772
1915.....	16,655	100	4,274	21,029
1925.....	52,910	4,247	12,318	69,475
1929.....	75,726	9,011	17,349	102,086
1930.....	78,622	9,828	17,963	106,413
1933.....	70,892	8,724	16,630	96,246
1935.....	70,710	10,283	17,471	98,464
1940.....	79,424	15,244	20,866	115,534
1945.....	101,925	22,373	27,677	151,975
1947.....	123,022	32,795	30,406	186,223
1948.....	132,052	38,382	30,827	201,261
1949.....	139,576	42,207	31,983	213,766
1950.....	149,800	50,910	33,337	234,047
1951.....	160,210	58,057	34,833	252,100

WHAT GOVERNMENT DOES AND COSTS

Ever since the Civil War, the role of government in the American economy has been steadily expanding. While probably more citizens have opposed this trend in the United States than in any other major nation, it has persisted. In the last two decades, first depression, and then war and its dislocations, have sharply accelerated the momentum of such government intervention.

Although many Americans have disliked and distrusted big government, federal power has grown steadily since the Civil War. It seems inevitable that the government will continue to accept an increasingly important role in the economy.

Post-war budgets have been higher than those in any pre-war period. In the peacetime budget for 1949-50, half the government's expenses were concerned with our national and international defense needs. The outbreak of the Korean war and the new rearmament effort starting in 1950 mean an even heavier military burden on the budget. How to distribute the remaining billions among tax relief, debt reductions and social programs will continue to be a major problem.

Our federal government has become so large, and its activities so numerous, that we are likely to overlook the many services performed at the state and local government levels. Nevertheless, in 1951 state and local expenditures amounted to \$15.1 billion, or more than 34 per cent of total government outlay.

The costs of running the more than 155,000 government units in the nation are immense. The variety of uses to which the billions of dollars raised in taxes or by borrowing is put is bewildering. This section spreads the central facts and figures before you.

Receipts and Expenditures of the National Government (in millions of dollars) *Source: U. S. Treasury Department.*

Yearly average or year ended June 30	Receipts				Expenditures							
	Customs (including tonnage tax, ¹)	Internal revenue		Other receipts	Total receipts	Net receipts ²	Department of the Army ³	Department of the Navy	Interest on public debt	All other	Total expendi- tures ⁴	Surplus (+) or deficit (-)
		Income and profits tax	Other									
1789-1800.....	6	.....	.....	.....	7	7	2	.....	3	1	6	.....
1801-1810.....	12	.....	.....	.....	13	13	2	.....	4	2	9	+4
1811-1820.....	16	.....	.....	.....	21	21	11	.....	5	3	24	-3
1821-1830.....	20	.....	2	.....	22	22	4	.....	4	5	16	+6
1831-1840.....	20	.....	10	.....	30	30	8	.....	.....	11	24	+6
1841-1850.....	24	.....	3	.....	27	27	13	.....	.....	11	32	-5
1851-1860.....	54	.....	6	.....	60	60	16	.....	1	11	60	.....
1861-1865.....	69	.....	20	.....	161	161	548	.....	35	36	684	-523
1866-1870.....	179	17	46	.....	447	447	128	.....	135	86	377	+70
1871-1875.....	186	51	30	.....	337	337	40	.....	112	112	287	+50
1876-1880.....	146	8	25	.....	288	288	37	.....	160	102	255	+33
1881-1885.....	202	.....	33	.....	367	367	43	.....	64	135	258	+109
1886-1890.....	216	.....	32	.....	375	375	40	.....	44	177	279	+96
1891-1895.....	177	.....	26	.....	353	353	50	.....	30	255	364	-11
1896-1900.....	185	.....	43	.....	435	435	111	.....	38	260	457	-22
1901-1905.....	260	.....	44	.....	559	559	133	.....	28	288	535	+24
1906-1910.....	311	4	56	.....	628	628	169	.....	23	334	639	-11
1915.....	210	80	72	.....	698	698	202	.....	23	394	761	-63
1918.....	180	2,314	299	.....	3,665	3,665	4,870	1,279	190	6,358	12,697	-9,032
1920.....	323	3,945	966	.....	6,694	6,694	1,622	736	1,020	3,025	6,403	+291
1929.....	602	2,331	493	.....	4,033	4,033	426	365	678	1,830	3,299	+734
1933.....	251	746	225	.....	2,080	2,021	435	349	689	3,150	4,623	-2,602
1937.....	486	2,163	211	.....	5,294	4,979	628	557	866	5,705	7,756	-2,777
1939.....	319	2,189	188	.....	5,668	5,104	695	673	941	6,657	8,966	-3,862
1942.....	389	7,960	295	.....	13,677	12,696	14,326	8,580	1,260	10,021	34,187	-21,490
1943.....	324	16,094	934	.....	23,402	22,202	42,526	20,888	1,808	14,400	79,622	-57,420
1944.....	431	34,655	3,325	.....	45,441	43,892	49,438	26,538	2,609	16,730	95,315	-51,423
1945.....	355	35,173	3,493	.....	47,750	44,762	50,490	30,047	3,617	14,549	98,703	-53,941
1946.....	435	30,885	9,426	.....	44,238	40,027	27,987	15,161	4,722	12,833	60,703	-20,676
1947.....	494	29,305	4,635	.....	44,508	40,043	9,172	5,597	4,958	19,562	39,289	+754
1948.....	422	31,171	3,824	.....	46,099	42,211	7,693	4,285	5,211	16,597	33,791	+8,419
1949.....	384	29,482	2,082	.....	42,773	38,246	7,862	4,435	5,339	20,730	40,057	-1,811
1950.....	423	28,263	1,439	.....	41,311	37,045	5,789	4,130	5,750	20,977	40,167	-3,122
1951.....	624	37,753	1,639	.....	53,369	48,143	8,601	5,863	5,613	18,199	44,633	-3,510
1952, est.....	575	52,224	1,633	.....	60,040	62,680	(⁵)	(⁵)	5,850	25,257	70,381	+48,201
1953, est.....	575	60,035	1,503	.....	77,737	70,998	(⁵)	(⁵)	6,150	28,563	85,444	+44,446

¹ Beginning 1932, tonnage tax incl. in "Other receipts." ² Net receipts equal total receipts less (a) appropriations to federal old-age and survivors' insurance trust fund beginning fiscal year 1937 and (b) refunds of receipts beginning fiscal year 1931. ³ Formerly War Department. ⁴ Includes Air Force: 1949—\$1,690,460,724; 1950—\$3,520,632,880; 1951—\$6,568,041,276. ⁵ Department of Defense: 1952—\$39,774,664,543; 1953—\$50,781,367,960.

Summary of Internal Revenue Collections

(in millions of dollars)

Source: U. S. Treasury Department.

Fiscal year ending	1939	1941	1943	1945	1946	1947	1948	1949	1950	1951	1952
Total internal revenue collections	5,162	7,352	22,369	43,800	40,672	39,108	41,865	40,463	38,957	50,446	65,009
Corporation income and excess profits.....	1,156	2,053	9,669	16,028	12,553	9,676	10,174	11,554	10,854	14,388	21,467
Total individual income tax and unemployment taxes.....	1,769	2,344	4,448	20,813	20,405	21,367	23,379	20,528	19,798	26,625	33,738
Individual income and old-age insurance.....	1,559	2,105	4,158	20,342	19,942	20,802	22,611	19,739	19,027	25,808	32,858
Unemployment Insurance.....	101	101	156	186	179	186	209	226	223	237	260
Railroad retirement.....	109	138	211	285	284	380	560	563	548	580	621
Total miscellaneous internal revenue.....	2,237	2,955	4,571	6,960	7,713	8,064	8,311	8,382	8,305	9,433	9,804
Capital stock tax.....	127	167	329	372	352	2	2	6	(*)	(*)	(*)
Estate and gift taxes.....	361	407	447	643	677	779	899	797	706	730	833
Alcoholic beverage taxes.....	588	820	1,423	2,310	2,526	2,475	2,255	2,211	2,219	2,547	2,549
Tobacco taxes.....	580	698	924	932	1,166	1,238	1,300	1,322	1,328	1,380	1,565
Stamp taxes.....	41	39	45	66	88	80	79	73	85	93	85
Manufacturers' and retailers' excise taxes.....	397	617	670	1,207	1,415	1,940	2,119	2,221	2,245	2,841	2,824
Miscellaneous taxes.....	144	207	732	1,430	1,490	1,551	1,656	1,753	1,721	1,843	1,947

* Less than 1. * Repealed for years after June 30, 1945. Beginning with July, 1950, included under "Miscellaneous."

State Revenues and Expenditures

(in millions of dollars)

Source: U. S. Bureau of the Census.

	1950	1951
Revenues and borrowings*.....	15,344	16,858
Expenditures and debt redemption*.....	15,412	15,445
General expenditures.....	12,270	13,023
Liquor store expenditures.....	674	782
Insurance trust expenditures.....	2,177	1,293

* Borrowings: 1950—1,428; 1951—1,284. Debt redemption: 1950—291; 1951—346.

Tax Revenues

(in millions of dollars)

Source: The Conference Board; Bureau of the Census

Fiscal year	Total	Federal	State	Local
1916.....	2,643	708	364	1,571
1920.....	9,165	5,689	636	2,840
1925.....	7,892	2,974	1,107	3,811
1930.....	10,277	3,479	1,780	5,018
1935.....	9,736	3,551	1,886	4,299
1940.....	12,907	4,910	3,313	4,684
1945.....	50,075	40,882	4,307	4,886
1950.....	50,967	35,053	7,930	7,984
1951.....	63,586	46,031	8,934	8,621

Functional Distribution of State

Employment and Payroll:

April, 1952

Source: U. S. Department of Commerce.

Function	Employees (in thousands)	Pay roll (in millions)
Police.....	21	5.8
Correction.....	37	9.6
Public welfare.....	36	8.6
Education.....	332	72.0
Institutions of higher learning..	258	54.8
Local schools.....	44	10.7
Other.....	30	5.7
Highways.....	177	43.3
Health and hospitals.....	202	45.0
State hospitals.....	176	38.5
Other.....	27	6.5
Waterways and other nonhighway transportation.....	4	1.0
Natural resources.....	79	17.3
Employment security.....	45	12.4
State liquor stores.....	14	3.3
All other.....	133	37.0
Total.....	1,079	255.4

HOW WE WORK

One of the most important changes which has occurred in the American economy during the past decade has been the fundamental change in our national perspective on employment. Where the '30's were haunted by the persistent spectre of mass unemployment, not only World War II but also the postwar period brought with them an era of steady employment, ever higher wages and benefits.

The outbreak of war in Korea found us with practically full employment. Contrary to our position at the beginning of World War II, there was practically no pool of unemployed, and there were much smaller reserves of employable women, aged persons, and handicapped workers. Yet, we have managed, and will continue to, barring all out war.

Employment and Unemployment (in millions of persons)

Sources: U. S. Bureau of Labor Statistics, U. S. Bureau of the Census, and U. S. Bureau of Agricultural Economics.
Note: Data prior to 1940 estimated by Research Institute of America from various Government sources.

Activity	1929	1932	1941	1943	1945	1947	1948	1949	1950	1951	1952 ¹
Total employment.....	46.7	37.9	50.4	54.5	52.8	58.0	59.4	58.7	60.0	61.0	60.1
Non-agricultural employment.....	36.8	26.3	41.3	45.4	44.2	49.8	51.4	50.7	52.5	54.0	53.8
Manufacturing.....	10.5	6.8	13.0	17.4	15.2	15.2	15.3	14.2	14.9	15.9	15.8
Durable goods.....	...	...	...	6.5	6.3	8.3	8.3	7.5	8.0	8.9	9.0
Nondurable goods.....	...	...	...	10.9	8.9	6.9	7.0	6.7	6.9	7.0	6.8
Mining.....	1.1	.7	.9	.9	.8	.9	1.0	.9	.9	.9	.9
Construction.....	1.5	1.0	1.8	1.6	1.1	2.0	2.2	2.2	2.3	2.6	2.4
Transportation and public utilities.....	3.9	2.8	3.2	3.6	3.9	4.1	4.2	4.0	4.0	4.1	4.1
Trade.....	6.4	4.9	7.6	7.3	7.7	9.2	9.5	9.4	9.5	9.8	9.7
Retail.....	...	...	...	5.7	5.9	6.8	7.0	6.9	7.0	7.2	7.1
Wholesale.....	...	...	...	1.6	1.8	2.4	2.5	2.5	2.5	2.6	2.6
Finance.....	1.4	1.3	1.5	1.4	1.4	1.6	1.7	1.8	1.8	1.9	1.9
Service.....	3.1	2.7	3.6	3.8	3.9	4.8	4.8	4.8	4.8	4.8	4.7
Government.....	3.1	3.2	4.6	6.0	6.0	5.4	5.6	5.8	5.9	6.4	6.5
Other, self-employed, domestic.....	6.9	5.1	5.1	3.4	4.2	6.6	7.1	7.6	8.4	7.6	7.3
Agricultural employment.....	9.9	9.6	9.1	9.1	8.6	8.2	8.0	8.0	7.5	7.0	6.3
Unemployment.....	2.0	12.7	5.5	1.1	1.1	2.2	2.0	3.4	3.1	1.9	1.8
Public works.....	...	...	1.9	(*)	...	...	...	...	...	...	...
Total civilian labor force.....	48.7	50.6	55.9	55.5	53.9	60.2	61.4	62.1	63.1	62.9	61.9
Armed forces.....	.3	.3	1.5	8.9	11.3	1.4	1.3	1.5	1.5	(*)	(*)
Total labor force.....	49.0	50.9	57.4	64.4	65.2	61.6	62.7	63.6	64.6	(*)	(*)

¹ Average of first 5 months not adjusted for seasonal variation. ² Negligible. ³ Beginning January, 1951, data on Armed Forces and total labor force not available.

Minutes of Working Time Required for Purchase Per Pound of Selected Foods

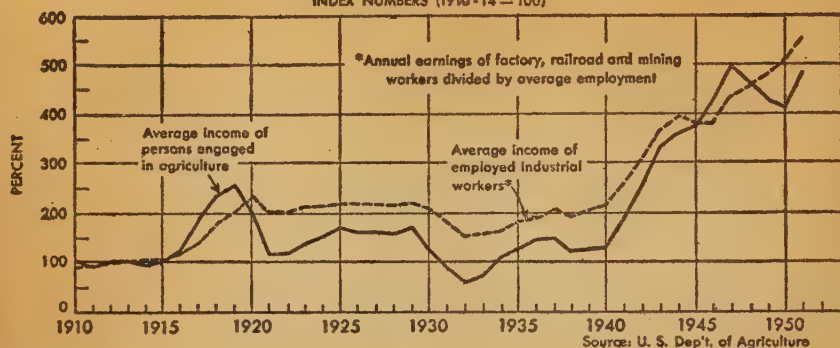
Source: U. S. Bureau of Labor Statistics.

Food	United States Sept. 1951	France (Paris) Oct. 1951	Germany Sept. 1951	Ireland Aug. 1951	Italy Sept. 1951	Norway Aug. 1951	Switzerland Oct. 1951	U.S.S.R. (Moscow Area) Apr. 1952
Flour, wheat.....	4	20	15	6	15	6	18	27
Macaroni.....	8	...	...	...	20	17	...	45
Rice.....	6	33	...	...	17	17	16	91
Bread.....	6	9	12	8	13	7	7	14
Beef, average.....	31	126	...	72	128	58	...	132
Pork chops.....	32	91	87	68	124 ¹	59 ¹	97	220 ¹
Veal, average.....	48	120	94	...	...	48	100	...
Lamb, leg.....	31	133	...	76	...	61	85	140
Fish (fresh, frozen)...	18	33	31	42	65	18	...	135
Butter.....	30	135	115	83	162	63	117	270
Cheese.....	22	104	...	60	109	38	35	...
Milk, fresh ²	8	16	15	16	20	9	12	42
Eggs ³	32	118	125	109	126	82	97	137
Fresh apples.....	4	19	16	...	...	...	9	89
Cabbage.....	2	7	...	...	...	5	6	37
Carrots.....	5	9	8	...	...	12	7	9
Potatoes.....	2	3	3	5	5	3	4	9
Coffee.....	32	175	535	...	250	68	122	531
Tea.....	49	...	...	74	...	228	188	953
Oleomargarine.....	13	64	33	55	...	19	...	152
Sugar.....	4	21	21	9	37	7	14	113

¹ Pork, average. ² Quart. ³ Dozen.

AVERAGE INCOME OF AGRICULTURAL AND INDUSTRIAL WORKERS, UNITED STATES, 1910-51

INDEX NUMBERS (1910-14 = 100)



Average Earnings and Hours Worked Per Week in Manufacturing Industries

Source: U. S. Department of Labor.

Industry	1939		1945		1947		1949		1951		1952 ²	
	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked
All manufacturing ¹	\$24.23	37.7	\$45.08	43.4	\$54.14	40.1	\$54.92	39.2	\$64.88	40.7	\$66.71	40.5
Durable goods.....	26.90	38.0	49.81	44.1	57.11	40.5	58.03	39.5	69.97	41.7	71.98	41.5
Primary metal industries.....	n.a.	n.a.	n.a.	n.a.	61.03	40.1	60.78	38.3	75.12	41.5	74.81	40.6
Iron and steel foundries.....	n.a.	n.a.	n.a.	n.a.	58.45	40.7	55.09	37.2	71.95	42.4	72.03	41.1
Nonferrous foundries.....	n.a.	n.a.	n.a.	n.a.	59.96	40.0	60.92	39.0	73.83	41.9	76.94	41.9
Fabricated metal products.....	n.a.	n.a.	n.a.	n.a.	56.68	40.6	57.82	39.6	69.35	41.7	70.90	41.6
Hand tools.....	n.a.	n.a.	n.a.	n.a.	56.07	40.9	54.54	38.6	69.49	42.5	69.19	41.6
Hardware.....	n.a.	n.a.	n.a.	n.a.	54.26	40.4	56.28	39.3	66.70	41.3	68.52	41.1
Structural metal products.....	n.a.	n.a.	n.a.	n.a.	58.17	41.2	59.90	40.5	71.74	42.6	73.34	42.5
Electrical machinery.....	27.50	38.6	47.15	44.1	55.66	40.1	56.96	39.5	66.86	41.4	69.73	41.4
Machinery, except electrical... ¹	29.27	39.3	53.02	45.8	60.52	41.2	60.44	39.5	76.73	43.5	79.56	43.5
Transportation equipment ¹	30.51	38.9	56.10	43.7	61.58	39.0	64.95	39.2	75.77	40.8	79.36	41.3
Automobiles.....	32.91	35.4	51.99	41.3	61.86	38.4	65.97	38.9	75.52	39.5	80.16	40.4
Lumber and wood products.....	n.a.	n.a.	n.a.	n.a.	51.38	41.5	51.72	40.6	59.26	40.9	59.28	40.5
Furniture & fixtures.....	n.a.	n.a.	n.a.	n.a.	48.99	41.1	49.48	40.1	57.72	41.2	60.12	41.3
Stone, clay and glass.....	24.30	37.6	40.60	43.1	53.46	40.9	54.45	39.8	64.94	41.6	65.07	40.8
Nondurable goods.....	22.11	37.4	38.87	42.4	50.61	39.6	51.41	38.8	58.50	39.5	59.75	39.2
Textile—mill products.....	17.09	36.6	31.56	41.1	45.59	39.2	44.83	37.7	51.33	38.8	51.46	38.3
Cotton, silk, synthetic fibers ¹	14.47	36.7	28.62	41.3	44.36	39.4	42.89	37.2	50.38	39.3	48.57	37.7
Woolen and worsted goods.....	19.50	36.4	36.81	41.6	52.45	40.1	51.19	38.9	57.71	39.1	59.89	38.9
Apparel and other finished textiles.....	18.44	34.5	32.15	36.9	42.79	36.2	41.89	35.8	45.65	36.0	46.26	36.1
Leather.....	19.42	36.2	35.58	41.1	41.66	37.2	41.61	36.6	47.10	37.0	49.61	38.2
Food.....	24.80	40.3	40.10	44.9	51.87	42.0	53.58	41.5	61.34	41.9	63.34	41.3
Tobacco.....	17.09	35.4	32.27	41.7	36.50	38.1	37.25	37.1	44.20	38.3	43.51	36.6
Paper.....	24.08	40.1	41.11	45.9	55.25	42.8	55.96	41.7	65.77	43.1	66.38	42.2
Printing and publishing.....	32.91	37.4	47.93	43.4	66.73	39.3	70.28	38.7	76.05	38.8	78.11	38.5
Chemicals.....	25.97	39.5	44.66	44.5	56.23	41.5	58.63	41.0	68.22	41.8	69.03	41.4
Petroleum and coal.....	33.11	36.5	56.71	46.2	69.23	40.7	72.36	40.4	81.30	41.0	82.11	40.7
Rubber.....	28.26	36.9	50.28	44.0	56.78	39.0	57.79	38.3	68.70	40.6	73.15	40.5

¹ Average weekly earnings in 1919 = \$23.29, 1929 = \$26.40, 1932 = \$17.86. Average hours worked per week in 1914 = 51.0, 1919 = 47.8, 1929 = 45.7, 1932 = 38.2. ² Average of first four months. ³ Figures for 1939 and 1945 exclude automobiles. ⁴ Figures for 1939 and 1945 are for cotton goods only. NOTE: Data prior to 1947 not strictly comparable; partially estimated by Research Institute. Designation n.a. means not available.

Percent Distribution of Families by Total Money Income, 1951

Source: U. S. Bureau of Census

Heads of families employed	No. employed (000)	Under \$1,000	\$1,000- \$3,000	\$3,000- \$5,000	\$5,000- \$7,000	Over \$7,000
Total.....	39,822	11.5%	31.0%	34.3%	14.2%	9.1%
Major occupation group:						
Professional, technical & kindred workers.....	2,502	1.9	12.9	34.9	25.9	24.5
Self-employed.....	531	2.5	8.3	14.1	22.8	52.4
Salaried.....	1,971	1.7	13.9	39.6	26.6	18.1
Farmers & farm managers.....	3,451	28.5	40.0	19.1	5.8	6.6
Managers, officials & proprietors, except farm.....	4,735	6.0	18.2	31.4	20.5	24.0
Self-employed.....	2,754	9.3	23.9	28.6	15.5	22.6
Salaried.....	1,981	1.6	10.9	35.0	26.9	25.7
Clerical & kindred workers.....	2,139	2.7	23.2	48.0	17.2	8.7
Sales workers.....	1,722	3.1	23.5	37.2	20.6	15.7
Craftsmen, foremen & kindred workers.....	6,812	2.7	22.4	46.5	20.4	7.9
Operatives & kindred workers.....	6,872	4.1	32.5	45.2	14.0	4.2
Private household workers.....	256	43.5	39.9	13.9	...	2.6
Service workers, except private household.....	1,911	8.6	42.1	35.1	9.5	4.8
Farm laborers & foremen.....	613	25.7	61.1	9.4	3.7	...
Laborers, except farm & mine.....	2,271	11.5	50.7	28.4	6.7	2.8
Armed forces or not employed.....	6,538	30.2	39.8	19.1	6.7	4.2
Major industry group:						
Agriculture, forestry & fisheries.....	4,241	27.6	43.6	17.5	5.7	5.5
Mining.....	689	2.4	31.2	43.2	16.6	6.6
Construction.....	2,848	5.7	20.5	36.0	18.7	8.9
Manufacturing.....	9,923	3.4	25.3	42.7	18.7	9.7
Transportation, communications & public utilities.....	3,154	4.0	25.1	47.2	16.3	7.4
Wholesale trade.....	1,454	2.5	22.7	39.0	21.2	14.6
Retail trade.....	4,211	6.2	31.7	36.3	14.2	11.6
Finance, insurance, real estate.....	945	2.8	18.2	34.8	19.2	25.0
Business & repair services.....	873	6.9	29.1	39.5	14.3	10.5
Personal services.....	1,306	18.9	40.4	24.5	9.5	6.9
Entertainment & recreation services.....	232	7.9	27.5	35.3	14.7	14.7
Professional & related services.....	1,742	5.0	26.4	31.9	18.2	18.7
Public administration.....	1,666	2.5	20.6	52.8	15.8	8.4
Armed forces or not employed.....	6,538	30.2	39.8	19.1	6.7	4.2

Work Injuries in Industry (in thousands)

Sources below: U. S. Bureau of Labor Statistics.

Industry	1936	1941	1944	1947	1949	1950	1951*
Manufacturing.....	312	453	787	539	381	426	500
Trade—Wholesale and retail.....	133	297	274	361	329	335	300
Public utilities.....	14	21	19	28	27	24	21
Construction.....	284	500	100	152	183	205	185
Railroads.....	38	48	92	72	46	177	168
Miscellaneous transportation.....	28	130	135	135	126		
Mining and quarrying.....	103	97	92	93	70	72	70
Services, govt. and misc.....	232	368	419	382	368	373	345
Agriculture.....	265	270	312	298	340	340	60
All industries.....	1,407	2,180	2,230	2,059	1,870	1,952	1,650

* Preliminary.

Labor Turnover in Manufacturing Establishments
(Monthly Average Rate Per 100 Employees)

	1929*	1932	1933	1937	1941	1943	1945	1947	1949	1950	1951	1952†
Accession rate.....	5.7	3.3	5.4	3.6	5.4	7.5	6.3	5.1	3.5	4.4	4.4	4.1
Separation rate.....	6.3	4.3	3.8	4.4	3.9	7.3	8.3	4.8	4.3	3.5	4.4	3.9
Discharges.....	.8	.2	.2	.2	.3	.6	.6	.4	.2	.3	.3	.3
Layoffs.....	2.1	3.5	2.7	3.0	1.3	.6	2.3	.9	2.4	1.1	1.2	1.2
Quits.....	3.4	.7	.9	1.3	2.0	5.2	5.1	3.4	1.5	1.9	2.4	2.1
Miscellaneous†.....	..	..	..	..	.4	.9	.3	.1	.1	.2	.5	.3

* Average for 7 months, June–December. † First 6 months' average, preliminary.

‡ Includes separations caused by death, permanent disability, retirement on pension, and extended leave. Beginning September 1940, workers leaving to enter the Army or Navy are included. Prior to January 1940, miscellaneous separations were combined with data for quits.

Strikes and Lockouts

Year	Strikes and lockouts Number	Workers involved Number (thousands)	Man-days idle Number (thousands)
1885.....	695	258	n.a.
1890.....	1,897	373	n.a.
1895.....	1,255	407	n.a.
1900.....	1,839	568	n.a.
1905.....	2,185	302	n.a.
1915.....	1,593	n.a.	n.a.
1917.....	4,450	1,227	n.a.
1920.....	3,411	1,463	n.a.
1921.....	2,385	1,099	n.a.
1922.....	1,112	1,613	n.a.
1923.....	1,553	757	n.a.
1924.....	1,249	655	n.a.
1925.....	1,301	428	n.a.
1926.....	1,035	330	n.a.
1927.....	707	330	26,219
1928.....	604	314	12,632
1929.....	921	289	5,352
1930.....	637	183	3,317
1931.....	810	342	6,893
1932.....	841	324	10,502
1933.....	1,695	1,168	16,872
1934.....	1,856	1,467	19,592
1935.....	2,014	1,117	15,456
1936.....	2,172	789	13,902
1937.....	4,740	1,861	28,425
1938.....	2,772	688	9,148
1939.....	2,613	1,171	17,812
1940.....	2,508	577	6,701
1941.....	4,288	2,363	23,048
1942.....	2,968	840	4,183
1943.....	3,752	1,981	13,501
1944.....	4,956	2,116	8,721
1945.....	4,750	3,470	38,025
1946.....	4,985	4,600	116,000
1947.....	3,693	2,170	34,600
1948.....	3,419	1,960	34,100
1949.....	3,606	3,030	50,500
1950.....	4,843	2,410	38,800
1951.....	4,734	2,220	22,900
1952*.....	3,150	2,280	43,200

n.a. = not available. *First seven months, preliminary.

Why Strikes?

Major issues	1948	1949	1950	1951
Wages and hours.....	50.8	46.6	52.8	44.4
Union organization, wages and hours.....	9.4	6.0	5.6	14.4
Union organization.....	13.4	15.7	13.4	10.2
Recognition.....	9.2	10.8	9.9	
Strengthening bargaining position.....	4	5	5	13
Closed or union shop.....	1.8	2.2	1.8	1.2
Discrimination.....	1.3	1.8	1.0	1.0
Other.....	.7	.4	.4	.7
Other working conditions.....	21.5	25.0	22.0	28.3
Job security.....	10.0	12.6	12.2	14.3
Shop conditions and policies.....	9.7	9.7	7.8	11.5
Work load.....	1.3	2.1	1.5	1.8
Other.....	.5	.6	.5	.7
Interunion or intraunion matters.....	3.8	5.8	5.3	6.9
Sympathy.....	1.3	1.4	1.0	1.6
Union rivalry or factionalism.....	1.4	1.5	1.6	1.4
Jurisdiction.....	1.0	2.6	2.5	3.7
Other.....	.1	.3	.1	.2
Not reported.....	1.1	.9	.9	1.7
All issues.....	100.0	100.0	100.0	100.0

Termination of Strikes in 1951

Methods of termination	Strikes (per cent of total)	Workers involved (per cent of total)
Agreement of parties reached:		
Directly.....	51.4	37.3
Assisted by non-gov't agencies & mediators.....	1.0	0.7
Assisted by government agencies.....	23.9	37.7
Terminated without formal settlement.....	20.8	23.1
Employers discontinued business.....	1.0	0.2
Not reported.....	1.9	1.0

Sources: U. S. Bureau of Labor Statistics.

Average Earnings and Hours Worked Per Week in Nonmanufacturing Industries

Source: U. S. Department of Labor.

Industry	1941		1945		1947		1949		1951		1952*	
	Earn- ings	Hours worked	Earn- ings	Hours worked	Earn- ings	Hours worked	Earn- ings	Hours worked	Earn- ings	Hours worked	Earn- ings	Hours worked
Anthracite mining.....	\$27.41	28.1	\$48.98	39.2	\$62.77	37.7	\$56.78	30.2	\$66.60	30.3	\$71.27†	31.7†
Bituminous coal mining.....	30.86	31.1	52.25	42.3	66.59	40.7	63.28	32.6	77.86	35.2	78.08	34.9
Metalliferous mining.....	33.28	41.7	45.86	44.0	54.63	41.8	61.55	40.9	74.60	43.6	78.98	43.9
Quarrying and nonmetallic mining.....	26.25	41.8	41.26	46.6	50.54	45.0	56.38	43.3	67.19	45.0	67.49	44.0
Telephone.....	31.95	40.1			44.77	37.4	51.78	38.5	58.30	39.1	58.27	37.6
Telegraph.....			37.98	45.5	53.56	44.6	62.85	44.7	68.33	44.6	70.84†	43.9†
Gas and electric utilities.....	36.54	39.8	50.05	43.5	56.69	41.9	63.99	41.5	71.77	41.9	73.20	41.6
Street railways and busses.....	35.42	46.5	50.50	51.4	57.14	46.8	64.61	44.9	72.32	46.3	73.58	46.1
Wholesale trade.....	32.32	41.0	44.07	42.7	51.99	41.0	57.55	40.7	64.51	40.7	66.49	40.4
Retail trade.....	21.94	42.5	28.31	40.3	40.66	40.3	45.93	40.4	50.25	40.1	51.03	39.8
Hotels (year-round).....	16.09	45.6	24.53	44.2	29.36	45.2	32.84	44.2	35.38	43.2	36.67	42.8
Laundries.....	19.00	43.3	28.61	43.4	32.71	42.6	34.98	41.5	37.52	41.1	38.33	41.3
Dyeing and cleaning.....	21.70	43.6	32.94	43.3	38.30	41.9	40.71	41.2	44.07	41.5	43.82	40.4
Private building construction.....	35.00	34.7	53.86	39.1	63.13	37.6	70.95	36.7	82.10	37.3	85.48	37.3

* First 4 months average. † Average of Jan.-Feb. only. NOTE: Data prior to 1947 not strictly comparable with that of later years.

Age of Persons in the Labor Force

(in thousands)

Source: U. S. Department of Commerce.

Age	1940*				1952†			
	Male	% Female	%		Male	% Female	%	
14 to 19....	2,619	7	1,395	11	3,678	8	2,514	13
20 to 24....	5,035	12	2,688	21	3,456	8	2,518	13
25 to 44....	18,817	47	6,107	47	20,570	46	8,812	44
45 to 64....	11,954	29	2,550	19	14,308	32	5,496	27
Over 65....	1,859	5	275	2	2,452	6	586	3
Total.....	40,284	100	13,015	100	44,464	100	19,926	100

* Week of March 24.

† Week of June 8.

Women Workers (in thousands)

Source: U. S. Bureau of the Census.

Note: Data prior to 1940 refers to gainful workers, not strictly comparable with current figures.

	Female workers	Total workers	Female workers as % of total
1900.....	5,114	28,283	18.1
1910.....	7,789	37,271	20.9
1920.....	8,430	41,236	20.4
1930.....	10,679	48,595	22.0
1940.....	14,160	55,640	25.4
1945.....	19,030	53,860	35.3
1946.....	16,780	57,520	29.2
1947.....	16,896	60,168	28.1
1948.....	17,583	61,442	28.6
1949.....	17,049	62,105	27.5
1950.....	18,657	63,099	29.6
1951.....	18,515	61,005	30.3
1952*.....	18,698	60,512	30.9

* Average first 6 months.

WHAT WE EARN AND SPEND—WHAT LIVING COSTS US

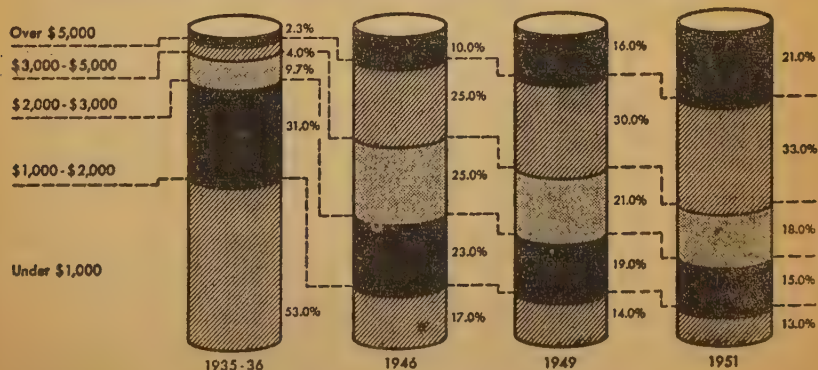
"Who gets the money?" is a favorite topic for political debate and more violent action. This section shows how much different groups in the economy—workers, farmers, professional persons, businessmen—receive of the total national income and how they spend it.

Over the long trend the American economy has been characterized by a steady rise in the real income of all groups. These increases have been particularly pronounced during the war years, as shown by the fact that 54 per cent of all families have incomes of \$3,000 or more against 6.3 per cent in 1935-36. Higher production made possible by greater capital investment per wage earner and greater production efficiency has enabled us to achieve this steady improvement. Thanks to steadily rising farm prices, farm income scored the most notable advances during recent years.

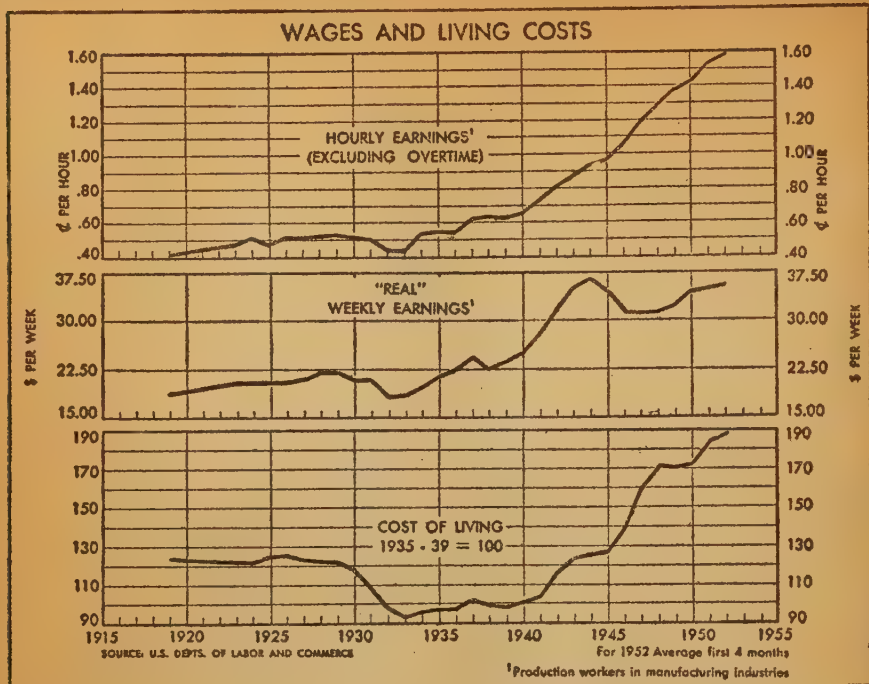
The increase in money incomes, however, does not tell the full story. Along with wages and other earnings, prices too have soared, as they always do in periods of war activity. While cost of living had soared more than 90 per cent since 1939, prices at wholesale—which in turn become business costs—had more than doubled during the same period. Contrary to the experience in previous postwar periods, hopes that the first weakening of prices in the fall of 1948 would lead to a gradual return to more normal levels were dashed when all indices started a new upward climb by mid-1950. Despite some temporary weakness in 1951 and early 1952, the general price trend had resumed its upward movement by mid-1952.

The crucial thing, however, is how each of us fared on the basis of comparing the increase in our own income with the higher cost of living. In these terms, higher prices have only slowed, not cancelled out our steady progress to greater economic well being.

DISTRIBUTION OF INCOME OF FAMILIES AND SINGLE CONSUMERS



SOURCE: NATURAL RESOURCES COMMITTEE, U. S. BUREAU OF LABOR STATISTICS, AND FEDERAL RESERVE BOARD



National Income by Distributive Shares (in millions of dollars)

Source: U. S. Department of Commerce.

Type of share	1929	1933	1941	1944	1946	1948	1950	1951	% of total 1951
National income.....	87,355	39,584	103,834	183,838	180,286	223,469	239,170	277,554	100.0
Compensation of employees.....	50,786	29,330	64,280	121,163	117,098	140,166	153,375	178,880	64.4
Wages and salaries.....	50,165	28,825	61,708	116,924	111,227	134,357	145,603	169,906	61.2
Private.....	45,206	23,660	51,537	83,449	90,577	115,659	123,442	141,159	50.8
Military.....	312	270	1,862	20,638	7,962	3,970	4,999	8,640	3.1
Government civilian.....	4,647	4,895	8,309	12,837	12,688	14,728	17,162	20,107	7.3
Supplements to wages and salaries.....	621	505	2,572	4,239	5,871	5,809	7,772	8,974	3.2
Employer contributions for social insurance.....	101	133	1,983	2,937	3,970	3,042	3,962	4,748	1.7
Other labor income.....	520	372	589	1,302	1,991	2,767	3,810	4,226	1.5
Income of unincorporated enterprises and inventory valuation adjustment.....	13,927	5,207	16,504	28,997	35,375	39,751	37,015	41,778	15.1
Business and professional.....	8,262	2,925	9,566	17,156	20,585	22,085	23,667	26,210	9.5
Income of unincorporated enterprises and inventory valuation adjustment.....	8,120	3,450	10,210	17,226	22,404	22,480	24,907	26,591	9.6
Farm.....	142	-525	-644	-70	-1,819	-395	-1,240	-381	-1
Rental income of persons.....	5,665	2,282	6,938	11,841	14,790	17,666	13,348	15,568	5.6
Corporate profits and inventory valuation adjustment.....	5,811	2,018	4,322	6,495	6,620	7,506	8,175	8,971	3.2
Corporate profits before tax.....	10,290	-1,981	14,615	24,046	18,271	31,711	34,795	41,579	15.0
Corporate profits tax liability.....	9,818	162	17,232	24,333	23,464	33,762	39,610	42,874	15.4
Corporate profits after tax.....	1,398	524	7,846	13,525	9,583	13,028	18,383	24,213	8.7
Dividends.....	8,420	-362	9,386	10,803	13,881	20,734	21,227	18,661	6.7
Undistributed profits.....	5,823	2,066	4,465	4,680	5,808	7,250	8,957	9,036	3.3
Inventory valuation adjustment.....	2,597	-2,428	4,921	6,128	8,073	13,484	12,270	9,625	3.4
Net interest.....	472	-2,143	-2,617	-287	-5,193	-2,051	-4,815	-1,295	-4

Farm Income—Estimated Receipts from Major Farm Marketings (in millions of dollars)

Source: U. S. Department of Agriculture.

Year	Cotton and cotton-seed	Tobacco	Bread grains	Oil-bearing crops	Feed grains and hay	Vegetables	Fruits and nuts	Meat animals	Dairy products	Poultry & eggs
1919.....	2,282	500	1,749	96	1,173	631	597	4,045	1,522	1,106
1929.....	1,511	279	788	85	697	751	582	3,017	1,838	1,187
1932.....	461	115	220	29	247	359	299	1,159	986	562
1939.....	627	271	464	110	485	545	411	2,271	1,346	775
1941.....	1,045	323	689	239	602	698	571	3,233	1,899	1,147
1944.....	1,548	688	1,369	581	1,203	1,510	1,446	5,706	2,938	2,473
1945.....	1,208	898	1,552	610	1,434	1,594	1,407	5,906	3,064	2,807
1947.....	2,245	1,033	2,768	908	2,328	1,710	1,160	9,340	4,046	2,926
1948.....	2,553	945	2,704	1,043	2,103	1,773	1,053	9,359	4,441	3,089
1949.....	2,632	904	2,339	846	2,299	1,641	1,013	8,383	3,778	3,088
1950.....	2,473	1,064	2,015	923	2,204	1,456	1,334	9,403	3,764	2,842
1951.....	2,955	1,167	1,914	1,035	2,039	1,677	1,262	11,319	4,393	3,609

Number and Expenditures of U. S. Residents Traveling in Europe and the Mediterranean Area 1950 and 1951

Source: U. S. Department of Commerce, Office of Business Economics.

Country	Year	Total expenditures (millions of dollars)	Number of travelers (thousands)	Average expenditures (citizens only) (dollars)	Average length of stay (citizens only) (days)	Average per diem expenditures (citizens only) (dollars)
Europe and Mediterranean...	1950	225.0	302.0	742	66	11.24
	1951	195.0	255.1	759	63	12.05
Austria.....	1950	3.0	23.1	126	12	10.50
	1951	3.0	21.8	134	12	11.17
Belgium.....	1950	4.5	47.3	97	9	10.78
	1951	3.5	36.7	102	8	12.75
Denmark.....	1950	4.0	23.1	169	19	8.89
	1951	3.5	21.7	155	15	10.33
France.....	1950	56.0	164.6	338	20	16.90
	1951	48.5	144.4	337	19	17.74
Germany.....	1950	14.5	73.5	211	28	7.54
	1951	15.5	68.5	230	26	8.85
Greece.....	1950	4.0	10.2	449	62	7.24
	1951	4.5	9.5	478	52	9.19
Ireland.....	1950	6.0	26.0	246	28	8.79
	1951	4.0	18.4	218	36	6.06
Italy.....	1950	50.0	136.4	361	36	10.03
	1951	34.0	100.7	337	32	10.53
Netherlands.....	1950	6.0	56.0	112	11	10.18
	1951	4.5	44.1	101	8	12.63
Norway.....	1950	4.0	18.4	228	31	7.35
	1951	3.0	16.6	171	26	6.58
Portugal.....	1950	2.0	12.1	143	11	13.00
	1951	2.5	9.3	243	31	7.84
Spain.....	1950	2.5	13.9	181	31	5.84
	1951	4.0	17.9	215	23	9.35
Sweden.....	1950	5.0	24.7	207	31	6.68
	1951	4.5	21.1	216	29	7.45
Switzerland.....	1950	18.0	94.2	184	11	16.73
	1951	15.5	80.1	193	12	16.08
United Kingdom.....	1950	37.0	137.2	262	26	10.08
	1951	36.5	123.8	293	27	10.85

How Consumers Spend Their Retail Dollar

Source: U. S. Department of Commerce.

Kind of business	1939	1941	1945	1947	1948	1949	1950	1951	1952*
Durable-goods stores.....	26.9%	31.1%	20.5%	30.6%	32.1%	33.6%	36.8%	34.5%	33.7%
Automotive group.....	13.2	16.1	7.5	14.3	15.4	17.5	19.7	17.6	17.2
Motor-vehicle dealers.....	12.0	14.8	6.4	13.2	14.4	16.5	18.6	16.5	16.1
Parts & accessories.....	1.2	1.3	1.1	1.1	1.0	1.0	1.1	1.1	1.1
Building-materials & hardware group.....	5.7	6.0	4.8	6.4	6.7	6.3	7.0	7.1	6.9
Lumber & building materials.....	4.2	4.4	3.2	4.5	4.8	4.5	5.2	5.2	4.9
Hardware.....	1.5	1.6	1.6	1.9	1.9	1.8	1.8	1.9	2.0
Home-furnishings group.....	4.1	4.7	3.5	5.3	5.3	5.2	5.8	5.2	5.0
Furniture & housefurnishings.....	2.8	3.2	2.7	3.4	3.4	3.2	3.4	3.2	3.2
Household appliances & radios.....	1.3	1.5	.8	1.9	1.9	2.0	2.4	2.0	1.8
Jewelry stores.....	.9	1.0	1.3	1.0	1.0	.9	.8	.8	.8
Other durable-goods stores.....	3.0	3.3	3.4	3.6	3.7	3.7	3.5	3.8	3.8
Nondurable-goods stores.....	73.1	68.9	79.5	69.4	67.9	66.4	63.2	65.5	66.3
Apparel group.....	7.8	7.5	9.9	7.8	7.5	7.1	6.5	6.5	6.5
Men's clothing & furnishings.....	2.0	1.9	2.3	1.9	1.8	1.7	1.5	1.5	1.4
Women's apparel & accessories.....	3.2	3.0	4.3	3.1	3.0	2.8	2.5	2.5	2.6
Family and other apparel.....	1.1	1.3	1.8	1.6	1.6	1.5	1.4	1.4	1.4
Shoes.....	1.5	1.3	1.5	1.2	1.1	1.1	1.1	1.1	1.1
Drug stores.....	3.7	3.3	4.0	3.2	3.1	3.1	2.9	3.0	3.0
Eating and drinking places.....	8.4	8.3	12.3	8.9	8.2	8.0	7.4	7.5	7.8
Food group.....	24.2	22.2	24.7	23.8	23.7	23.7	22.8	24.5	25.2
Grocery and combination.....	18.4	16.9	18.7	18.8	19.0	19.1	18.4	19.8	20.4
Other food.....	5.8	5.3	6.0	5.0	4.7	4.7	4.4	4.7	4.8
Gasoline service stations.....	6.7	6.3	4.2	4.6	5.0	5.3	5.3	5.6	5.7
General-merchandise group.....	15.4	14.4	15.1	13.4	13.1	12.5	12.0	12.0	11.6
Department, including mail-order.....	9.2	8.8	9.1	8.4	8.2	7.7	7.4	7.3	7.0
Variety.....	2.6	2.4	2.3	1.9	1.9	1.9	1.8	1.9	1.8
Other general-merchandise stores.....	3.6	3.2	3.7	3.1	3.0	2.9	2.8	2.8	2.8
Other nondurable-goods stores.....	6.9	6.9	9.3	7.7	7.3	6.7	6.3	6.4	6.5
Liquor.....	1.4	1.5	2.9	2.2	2.0	1.9	1.8	1.8	1.8
All other.....	5.5	5.4	6.4	5.5	5.3	4.8	4.5	4.6	4.7

* First 5 months, seasonally adjusted.

Consumer Spending

Source: U. S. Department of Commerce.

Group	(in millions of dollars)								1951	
	1929	1932	1939	1941	1945	1947	1949	1950	1951 % of total	
Food, alcohol and tobacco	21,374	12,719	21,072	26,476	45,924	60,483	63,145	65,748	73,861	35.5
Clothing, accessories, and jewelry	11,018	5,973	8,299	10,483	20,247	23,144	23,007	23,025	24,630	11.8
Personal care	1,116	817	1,004	1,208	2,077	2,261	2,216	2,303	2,415	1.2
Housing	11,421	8,964	8,940	9,863	12,205	14,603	18,080	19,877	21,765	10.5
Household operation	10,509	6,675	9,461	11,724	14,865	22,717	23,540	26,451	27,383	13.2
Medical care and death expenses	3,620	2,575	3,386	3,961	5,902	7,812	8,885	9,463	10,145	4.9
Personal business	5,221	3,111	3,725	4,099	4,787	6,232	7,576	8,741	9,502	4.6
Transportation	7,496	3,924	6,250	8,241	6,694	14,876	19,274	22,526	21,788	10.5
Recreation	4,327	2,439	3,446	4,225	6,314	9,733	10,276	11,330	11,308	5.4
Private education and research	664	571	628	692	871	1,316	1,663	1,793	1,847	.9
Religious and welfare activities	1,196	973	938	1,014	1,572	1,589	1,762	1,857	1,955	.9
Foreign travel and remittances—net	799	467	317	269	1,621	804	1,164	1,163	1,373	.6
Total consumer outlay	78,761	49,208	67,466	82,225	123,079	165,570	180,588	194,277	207,972	100.0

Income, Expenditures and Savings

(in billions of dollars)

Source: U. S. Department of Commerce.

	1929	1933	1939	1941	1945	1947	1949	1950	1951	1952†
Real spendable income*.....	67.3	48.9	70.6	87.5	117.5	106.2	110.0	119.5	121.2	122.4
Spendable income.....	82.5	45.2	70.2	92.0	151.1	169.5	187.2	205.5	225.0	231.0
Consumer expenditures.....	78.8	46.3	67.5	82.3	123.1	165.6	180.6	194.3	208.0	214.1
Consumer savings.....	3.7	-1.2	2.7	9.8	28.0	3.9	6.6	11.2	17.0	16.9

* Spendable income adjusted for changes in U. S. Bureau of Labor Statistics Consumer Price Index. † First half, at annual rate, preliminary.

Farm Income (in millions of dollars)

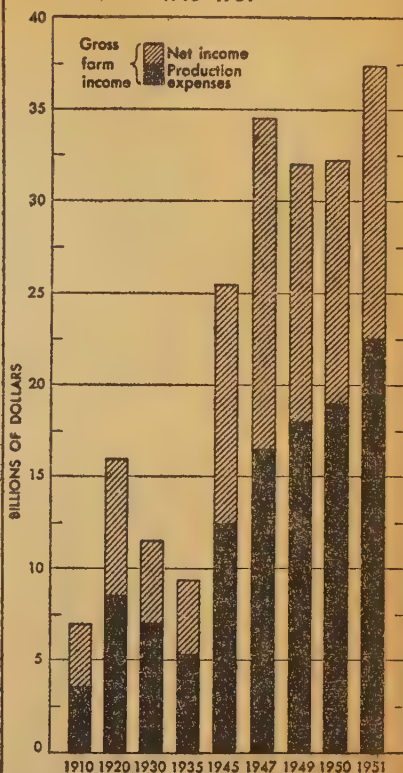
Year	Est. cash income		Government payments	Total cash income
	Crops	Livestock and livestock products		
1919.....	7,645	6,925	...	14,570
1929.....	5,120	6,179	...	11,299
1931.....	2,532	3,837	...	6,369
1932.....	1,984	2,751	...	4,735
1933.....	2,465	2,843	131	5,439
1935.....	2,957	4,117	573	7,647
1937.....	3,906	4,913	336	9,155
1939.....	3,295	4,524	763	8,582
1941.....	4,605	6,470	544	11,619
1942.....	6,439	9,047	650	16,136
1943.....	7,892	11,466	645	20,003
1944.....	9,040	11,337	776	21,153
1945.....	9,419	12,001	742	22,162
1946.....	10,835	13,719	772	25,326
1947.....	13,231	16,523	314	30,068
1948.....	13,136	17,087	257	30,480
1949.....	12,586	15,426	185	28,197
1950.....	12,575	16,198	283	29,056
1951.....	13,182	19,609	286	33,077
1952*.....	3,505	7,360	180	11,045

* Total for first 5 months, not adjusted for seasonal variation.

Daily Farm Wage Rates

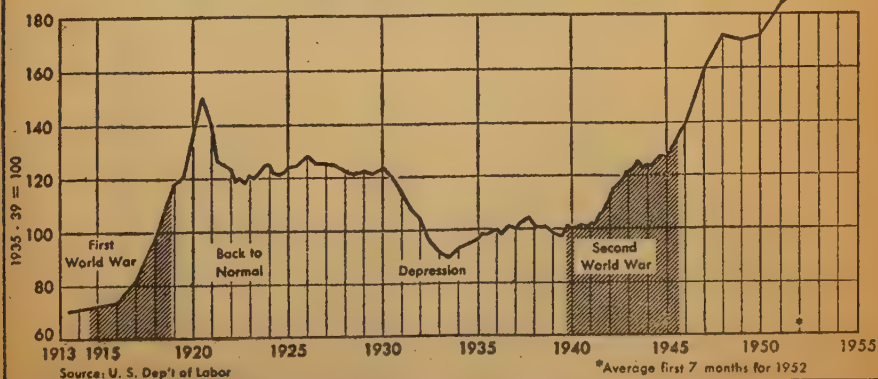
Year	Farm wage rates (average)		Year	Farm wage rates (average)	
	With board	Without board		With board	Without board
1910.....	\$1.05	\$1.35	1943.....	\$2.90	\$3.30
1920.....	2.80	3.30	1945.....	3.85	4.35
1925.....	2.00	2.35	1947.....	4.50	5.10
1929.....	2.00	2.30	1948†.....	4.80	5.40
1933.....	.90	1.15	1950†.....	4.45	4.50
1940.....	1.30	1.60	1951†.....	4.80	5.10
1941.....	1.65	1.95	1952†.....	4.95	5.10

* Average of the first of Jan., April and July. † New series; not entirely comparable with previous years.

GROSS FARM INCOME:
NET INCOME AND PRODUCTION
EXPENSES OF FARM OPERATORS
1910-1951

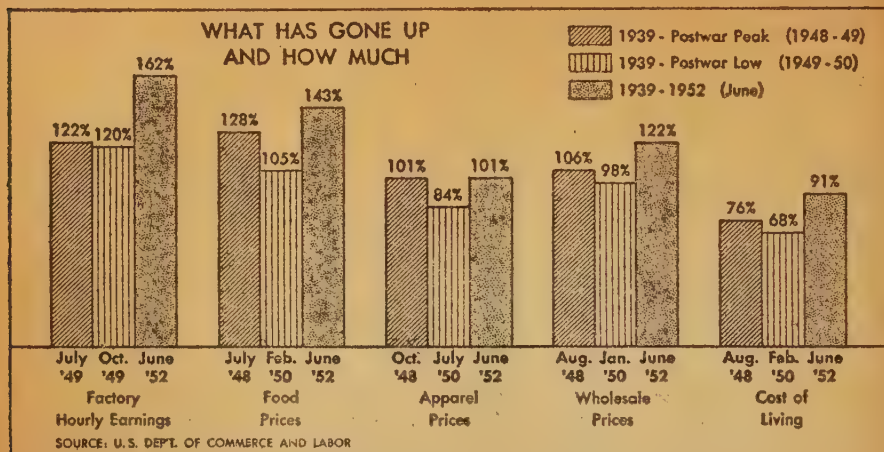
SOURCE: U. S. DEPT. OF AGRICULTURE

COST OF LIVING (ALL ITEMS-AVERAGE FOR LARGE CITIES)



Source: U. S. Dep't of Labor

*Average first 7 months for 1952



Consumer Price Index (1935-1939 = 100)

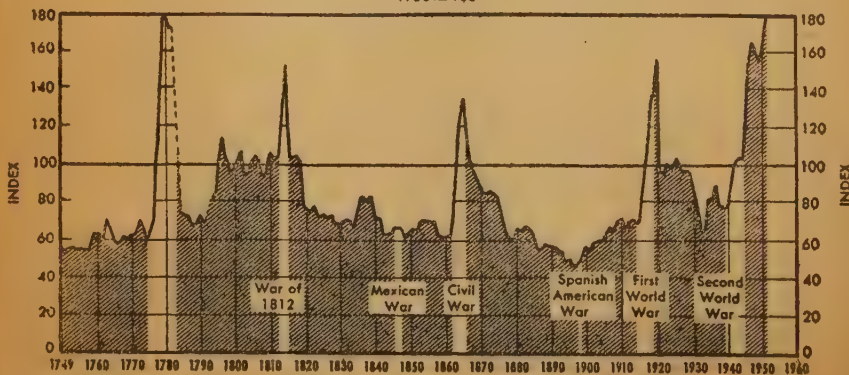
Year	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House furnishings	Miscel- laneous*
1929.....	122.5	132.5	115.3	141.4	112.5	111.7	104.6
1932.....	97.6	86.5	90.8	116.9	103.4	85.4	101.7
1937.....	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1939.....	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1941.....	105.2	105.5	106.3	106.4	102.2	107.3	104.0
1943.....	123.7	138.0	129.7	108.7	107.7	125.6	115.8
1945.....	128.6	139.1	145.9	109.5	110.3	145.8	124.1
1946.....	139.5	159.6	160.2	110.1	112.4	159.2	128.8
1947.....	159.6	193.8	185.8	113.6	121.1	184.4	139.9
1948.....	171.9	210.2	198.0	121.2	133.9	195.8	149.9
1949.....	170.2	201.9	190.1	126.4	137.5	189.0	154.6
1950.....	171.9	204.5	187.7	131.0	140.6	190.2	156.5
1951.....	185.6	227.4	204.5	136.2	144.1	210.9	165.4
1952†.....	188.7	230.0	203.3	140.7	145.1	206.9	170.9

* Includes transportation, medical care, household operation, recreation, personal care.

† Average for first 6 months.

WHOLESALE PRICES* All Commodities—Yearly Average

1926=100



Source: U. S. Dep't of Labor

* This old series has been discontinued as of Dec. 1951.
See elsewhere in this section for new wholesale price index.

Average Retail Prices of Principal Food Items

Source: U. S. Department of Labor.

Prices in cents per pound except for milk (cents per quart), eggs and oranges (cents per dozen), and tomatoes (cents per No. 2 can).

Item	1913	1920	1922	1929	1932	1941	1943	1945	1947	1949	1950	1951	1952†
Wheat flour.....	3.3	8.1	5.1	5.1	3.2	4.5	6.1	6.4	9.6	9.6	9.8	10.4	10.5
Corn meal.....	3.0	6.5	3.9	5.3	3.6	4.3	5.6	6.4	9.8	9.1	9.0	9.6	10.2
Bread, white.....	5.6	11.5	8.7	8.8	7.0	8.1	8.9	8.8	12.5	14.0	14.3	15.7	15.9
Round steak.....	22.3	39.5	32.3	46.0	29.7	39.1	43.9	40.6	75.6	85.3	93.6	109.3	111.9
Chuck roast.....	16.0	26.2	19.2	31.4	18.5	25.5	30.2	28.1	51.5	55.5	61.6	74.1	75.4
Pork chops.....	21.0	42.3	33.0	37.5	21.5	34.3	40.3	37.1	72.2	74.3	75.4	79.4	75.7
Bacon, sliced.....	27.0	52.3	39.8	43.9	24.2	34.3	56.2	41.1	77.7	66.5	63.7	67.2	61.3
Ham, whole.....	...	...	...	...	...	30.4	37.7	34.7	67.5	63.4	62.0	66.5	62.7
Lamb, leg.....	18.9	39.3	36.6	40.2	23.8	29.7	40.3	40.0	64.2	72.5	74.3	83.1	82.3
Butter.....	38.3	70.1	47.9	55.5	27.8	41.1	52.7	50.7	80.5	72.5	72.9	81.9	88.3
Cheese.....	22.1	41.6	32.9	39.5	24.4	30.0	37.4	35.6	59.1	56.2	51.8	59.1	60.2
Milk, fresh (delivered)...	8.9	16.7	13.1	14.4	10.7	13.6	15.5	15.6	19.6	21.1	20.5	23.1	24.0
Eggs.....	34.5	68.1	44.4	52.7	30.2	39.7	57.2	58.1	69.5	69.6	60.4	73.7	58.7
Bananas.....	...	12.6	10.3	9.7	6.5	7.2	11.7	10.4	15.1	16.6	16.3	16.3	16.8
Oranges.....	...	63.2	57.4	44.7	30.2	31.0	44.3	48.5	43.4	51.8	46.8	48.8	45.7
Cabbage.....	...	6.4	4.6	5.3	4.1	4.2	7.1	6.1	7.3	6.7	5.9	8.6	10.8
Onions.....	...	7.1	7.9	6.7	5.0	5.0	7.5	6.9	7.3	7.4	6.8	7.9	12.9
Potatoes.....	1.7	6.3	2.8	3.2	1.7	2.4	4.6	4.9	5.0	5.5	4.7	5.1	7.2
Tomatoes.....	...	14.8	13.4	12.8	9.3	9.1	15.0	12.2	19.3	15.2	14.7	19.3	17.5
Prunes, dried.....	...	28.1	20.1	15.3	9.2	9.8	16.6	17.5	24.7	23.1	24.6	27.5	26.5
Coffee.....	29.8	47.0	36.1	47.9	29.4	23.6	30.0	30.5	46.9	55.4	79.4	86.8	86.9
Lard.....	15.8	29.5	17.0	18.1	8.7	12.7	19.0	18.8	31.5	19.2	19.1	24.6	19.8
Sugar.....	5.5	19.4	7.3	6.4	5.0	5.7	6.8	6.7	9.7	9.5	9.7	10.1	10.1

* Average of 10 months only; prices not computed for Sept. and Oct. † Average of first five months.

Wholesale Price Indexes by Major Commodity Groups (1926 = 100)*

Source: U. S. Bureau of Labor Statistics.

Year	All commodities	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	House furnishing goods	Miscellaneous†
1890.....	56.2	50.4	55.5	47.5	57.8	38.1	105.3	46.5	73.2	49.9	97.9
1900.....	56.1	50.5	50.8	49.4	53.3	46.3	98.0	46.2	82.1	48.9	102.0
1910.....	70.4	74.3	64.9	60.2	58.4	47.6	85.2	55.3	82.0	54.0	152.7
1915.....	69.5	71.5	65.4	75.5	54.1	51.8	86.3	53.5	112.0	56.0	86.9
1917.....	117.5	129.0	104.5	123.8	98.7	105.4	150.6	88.2	165.0	74.2	122.1
1919.....	138.6	157.6	129.5	174.1	135.3	104.3	130.9	115.6	157.0	105.9	139.1
1920.....	154.4	150.7	137.4	171.3	164.8	163.7	149.4	150.1	164.7	141.8	167.5
1921.....	97.6	88.4	90.6	109.2	94.5	96.8	117.5	97.4	115.0	113.0	109.2
1922.....	96.7	93.8	87.6	104.6	100.2	107.3	102.9	97.3	100.3	103.5	92.8
1929.....	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6
1932.....	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4
1937.....	86.3	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8
1939.....	77.1	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8
1940.....	78.6	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3
1941.....	87.3	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0
1942.....	98.8	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7
1943.....	103.1	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2
1944.....	104.0	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6
1945.....	105.8	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7
1946.....	121.1	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3
1947.....	152.1	181.2	168.7	182.4	141.7	108.7	145.0	179.7	127.3	131.1	115.5
1948.....	165.1	188.3	179.1	188.8	149.8	134.2	163.6	199.1	135.7	144.5	120.5
1949.....	155.0	165.5	161.4	183.4	140.4	131.7	170.2	193.4	118.6	145.3	112.3
1950.....	161.5	170.4	165.1	191.9	148.0	133.3	173.6	206.0	122.7	153.2	120.9
1951.....	180.4	196.1	186.9	221.4	172.2	138.2	189.2	225.5	143.3	176.0	141.0

* This index (1926 = 100) has been superseded by a new series based on 1947-49 = 100, beginning Jan. 1952. This old series was the official index through Dec. 1951. See page 318 for new wholesale price indexes.
† Includes automobile tires and tubes, paper and pulp, crude rubber and others.

Wholesale Price Indexes by Selected Commodity Group*

(1947-49 = 100)

Source: U. S. Bureau of Labor Statistics.

Commodities	1947	1948	1949	1950	1951	1952†
All commodities.....	96.4	104.4	99.2	103.1	114.8	112.1
Farm products.....	100.0	107.3	92.8	97.5	113.4	108.3
Processed foods.....	98.2	106.1	95.7	99.8	111.4	109.0
Commodities other than farm and food.....	95.3	103.4	101.3	105.0	115.9	113.5
Chemicals and allied products.....	101.4	103.8	94.8	96.3	110.0	105.2
Fuel, power and lighting materials.....	90.9	107.1	101.9	103.0	106.7	106.7
Furniture and other household durables.....	95.6	101.4	103.1	105.3	114.1	112.0
Hides, skins and leather products.....	101.0	102.1	96.9	104.6	120.3	97.4
Metals and metal products.....	91.3	103.9	104.8	110.3	122.8	122.2
Textile products and apparel.....	100.1	104.4	95.5	99.2	110.6	100.7
Tobacco manufactures and bottled beverages..	98.0	100.4	101.6	102.4	108.1	110.4

* New series, see page 317 for old wholesale price indexes. † First 6 months average.

Farm Prices and Parity Prices

Source: U. S. Bureau of Agricultural Economics.

Product	Price received	Parity price*	Actual price as % of parity price
June 15, 1952			
Wheat (bushel).....	\$ 2.06	\$ 2.45	84.1%
Rye (bushel).....	1.72	1.68	102.4
Rice (bushel).....	5.60	5.58	100.4
Corn (bushel).....	1.73	1.78	97.2
Oats (bushel).....	.78	.94	83.0
Barley (bushel).....	1.24	1.45	85.5
Sorghum grain (100 pounds)...	2.68	2.85	94.0
Hay (ton).....	21.80	28.00	77.9
Cotton (pound).....	.36	.38	94.7
Cottonseed (ton).....	61.90	75.50	82.0
Soybeans (bushel).....	3.02	2.86	105.6
Peanuts (pound).....	.10	.10	99.0
Flaxseed (bushel).....	3.67	4.72	77.8
Potatoes (bushel).....	3.10	1.73	179.2
Sweet potatoes (bushel).....	4.35	2.58	168.6
Apples (bushel).....	3.01	2.83	106.4
Oranges on tree (box).....	1.35	3.52	38.4
Hogs (hundredweight).....	19.40	21.40	90.7
Beef cattle (hundredweight)...	26.70	21.00	127.1
Veal calves (hundredweight)...	30.70	23.50	130.6
Lambs (hundredweight).....	25.80	23.10	111.7
Butterfat (pound).....	.71	.76	92.3
Milk, wholesale (100 pounds)...	4.36	4.80	90.8
Chickens (pound).....	.25	.32	76.5
Eggs (dozen).....	.36	.51	70.4
Wool (pound).....	.52	.60	86.6

* Parity price is the August 1909-July 1914 average price increased by the rise in index of prices paid by farmers, including interest and taxes.

Farm to Retail Price Spreads for Farm Food Products*

Source: U. S. Department of Agriculture.

Year	Retail cost (dollars)	Net farm value (dollars)	Farmer's share of consumer's dollars (%)
Average:			
1913-19.....	361	170	47
1920-24.....	444	181	41
1925-29.....	439	183	42
1930.....	422	163	39
1932.....	285	90	32
1933.....	277	90	32
1935.....	347	134	39
1937.....	363	151	42
1939.....	318	122	38
1940.....	319	127	40
1941.....	349	154	44
1942.....	409	195	48
1943.....	459	236	51
1944.....	451	233	52
1945.....	459	246	54
1946.....	528	279	53
1947.....	644	335	52
1948.....	690	350	51
1949.....	646	308	48
1950.....	645	308	48
1951.....	722	360	50
1952†.....	739	359	49

* Retail cost of 1935-39 average annual purchases of farm food products by a family of three average consumers; farm value of equivalent quantities sold by producers adjusted for value of by-products. † Average first 6 months.

WHAT WE OWN

What and how consumers, businessmen and government units save and invest jointly determines the enduring wealth of the country. Money, stocks, bonds, property of all kinds—these make up the stock of American wealth. The facts about them are statistically summarized and analyzed in the present section.

The following figures on the expanding ownership of modern conveniences point up the rise in American living standards.

Automobiles: 8,000 in 1900; 17,439,701 in 1925; 42,864,000 today.

Telephones: 1,355,900 in 1900; 16,935,900 in 1925; 45,636,437 today.

Homes with radios: 3,500,000 in 1925; 44,850,000 today plus 15,500,000 homes with television today.

Homes with electric washers: 3,500,000 in 1926; 30,100,000 today.

Homes with electric ranges: 370,000 in 1926; 9,350,000 today.

Homes with vacuum cleaners: 5,200,000 in 1926; 23,640,000 today.

Homes with electric refrigerators: 142,000 in 1926; 35,500,000 today.

Selected Types of Individual Savings

(in millions of dollars)

Source: Federal Reserve Board, Treasury Department, Securities and Exchange Commission; "The Insurance Year Book," Federal Home Loan Bank, Department of Commerce.

Type	1939	1941	1943	1945	1947	1949	1950	1951
Life Insurance.....	23,024	26,592	31,365	37,509	43,820	50,231	53,630	57,150*
Time deposits:								
Mutual savings banks.....	10,523	10,532	11,738	15,385	17,746	19,273	20,009	20,887
Commercial banks.....	15,258	15,884	19,224	30,135	35,249	36,146	36,314	37,859
Postal savings system.....	1,278	1,313	1,786	2,932	3,416	3,197	2,924	2,071
Savings and loans association assets.....	4,118	4,652	5,494	7,365	9,753	12,471	13,978	16,079
Government pension and trust funds.....	7,369	16,969	27,069	34,069	37,669	39,966	41,369	45,169
U. S. savings bonds.....	2,229	6,212	27,363	48,183	52,053	56,707	58,019	57,587
Demand deposits.....	8,400	11,300	18,200	26,500	32,300	29,600	31,200	32,700
Currency.....	4,200	6,800	14,400	20,800	20,600	19,700	19,700	20,400
Total.....	76,399	146,539	215,878	249,006	259,443	267,291	275,831	290,532

* Estimated.

Money in Circulation

(in millions of dollars)

Source: U. S. Treasury Department.

June 30	Total*	Gold certificates	Silver dollars	Silver certificates	Subsidiary silver	Minor coin	United States notes	Federal reserve notes	Federal reserve bank notes	National bank notes
1929.....	4,746	935	44	387	284	115	262	1,693	4	653
1932.....	5,695	716	30	353	256	114	289	2,780	3	701
1935.....	5,567	117	32	702	296	125	285	3,223	82	704
1937.....	6,447	88	38	1,078	341	144	282	4,169	38	269
1939.....	7,047	72	42	1,454	361	155	266	4,484	26	187
1941.....	9,612	63	53	1,714	434	194	300	6,684	20	151
1942.....	12,383	59	66	1,754	504	213	317	9,310	19	139
1943.....	17,421	57	84	1,649	610	236	322	13,747	584	132
1944.....	22,504	54	103	1,588	700	263	322	18,750	597	126
1945.....	26,746	52	125	1,651	788	292	323	22,868	527	120
1946.....	28,245	50	140	2,025	843	317	317	23,973	464	114
1947.....	28,297	48	148	2,061	876	331	320	23,999	406	106
1948.....	27,903	45	156	2,062	919	346	321	23,600	353	99
1949.....	27,493	43	164	2,061	940	355	319	23,209	309	93
1950.....	27,156	41	170	2,177	965	361	321	22,760	274	86
1951.....	27,809	39	180	2,092	1,020	378	318	23,456	243	81
1952.....	29,018	38	191	2,086	1,092	394	318	24,601	221	77

* Includes Treasury notes of 1890 and for 1929 and 1932 gold coin.

Sales and Redemptions of United States Savings Bonds

(in millions of dollars)

Source: U. S. Treasury Department.

Year	All Series Sales*	Amount out-stand-ings†	Series E Sales*	Amount out-stand-ings†
1941	3,036	168	1,145	11
1943	13,729	1,585	10,344	1,380
1945	12,937	5,558	9,822	4,963
1947	6,694	5,126	4,085	3,930
1949	5,833	5,101	4,208	3,448
1950	6,074	5,840	3,668	3,912
1951	3,961	5,651	3,190	4,036
1952‡	2,080	2,624	1,716	2,130

* Issue price. † End of year. ‡ Jan. to June, inclusive.

Distribution of Consumer Liquid Assets

Source: Federal Reserve Board.

Spending units ranked by incomes	Percentage of liquid assets held:				
	1952	1951	1950	1949	1947
Highest tenth.....	39	36	35	44	39
Second tenth.....	11	15	13	11	15
Third tenth.....	9	10	10	9	9
Fourth tenth.....	8	6	8	8	7
Fifth tenth.....	7	7	8	6	7
Sixth tenth.....	5	6	6	6	7
Seventh tenth.....	5	6	7	6	5
Eighth tenth.....	5	5	5	3	4
Ninth tenth.....	5	4	4	4	4
Lowest tenth.....	6	5	4	3	3
All units.....	100	100	100	100	100

WHAT WE OWE

Much modern wealth is also debt; one man's asset is frequently another man's liability. For example, while Americans consider their close to \$60 billion in war and savings bonds as assets they own, the bonds are also liabilities which, as part of our common public debt, must be financed or retired.

Our steadily growing national debt was multiplied by the war. Worried by the size of this debt and the burden it enforced on the economy in the form of interest charges, many people felt strongly that a determined effort ought to be made to retire part of this debt—until the financial burden imposed by our new mobilization brought us face to face with the need to engage once more in deficit financing.

The debt we incur as individuals took a nose dive early in the war, partly because of government restrictions and partly because many of the goods we normally buy on credit just weren't available. With the end of the war, however, consumer credit began to rise sharply. To help stem new inflationary pressures, controls were once more slapped on in 1950, only to be revoked again by 1952. Despite this temporary restraint, total consumer debt had passed the \$21-billion mark by early fall of 1952.

Net Debt in the United States*

(in billions of dollars)

Source: U. S. Department of Commerce.

Class	1916	1920	1925	1930	1935	1940	1945	1949	1950	1951
Net Public Debt:										
Federal.....	1.2	23.7	20.3	16.5	34.4	44.8	252.7	218.6	218.7	218.7
State and local.....	4.4	5.9	10.0	14.1	16.0	16.5	13.7	18.1	20.7	23.3
Total public debt.....	5.6	29.6	30.3	30.6	50.5	61.3	266.5	236.7	239.4	242.0
Net Private Debt:										
Corporate.....	40.2	57.7	72.7	89.3	74.8	75.6	85.3	115.8	136.4	155.8
Long-term.....	29.1	32.6	39.7	51.1	43.6	43.7	38.3	56.5	59.8	64.8
Short-term.....	11.1	25.1	33.0	38.2	31.2	31.9	47.0	59.3	76.6	91.0
Individual & noncorporate.....	36.3	48.1	59.7	71.6	50.6	54.0	55.5	94.2	110.0	121.4
Mortgage: Farm.....	5.8	10.2	9.7	9.4	7.4	6.5	4.7	5.4	5.8	6.3
Nonfarm.....	8.5	11.9	21.6	32.7	26.1	27.2	27.9	51.9	61.1	69.5
Nonmortgage: Farm.....	2.0	3.9	2.8	2.4	1.5	2.6	2.5	6.4	6.1	7.0
Nonfarm.....	20.0	22.1	25.6	27.1	15.6	17.7	20.5	30.5	36.9	38.7
Total private debt.....	76.5	105.8	132.2	160.8	125.4	129.6	140.8	210.0	246.4	277.2
Total public and private debt.....	82.1	135.4	162.7	191.4	175.9	190.9	407.3	446.7	485.8	519.2

* End of year.

Public Debt of the United States

Source: U. S. Treasury Department.

June 30—	Gross debt	
	Amount (in millions of dollars)	Per capita (dollars)
1800*.....	\$ 83	\$ 15.87
1860.....	65	2.06
1865.....	2,678	75.01
1900.....	1,263	16.60
1915.....	1,191	11.85
1920.....	24,299	228.23
1929.....	16,931	139.04
1930.....	16,185	131.51
1932.....	19,487	156.10
1935.....	28,701	225.55
1937.....	36,425	282.75
1939.....	40,440	308.98
1943.....	136,696	899.83
1944.....	201,003	1,452.44
1945.....	258,682	1,848.60
1946.....	269,422	1,905.42
1947.....	258,286	1,792.05
1948.....	252,292	1,720.71
1949.....	252,770	1,694.75
1950.....	257,357	1,696.61
1951.....	255,222	1,653.37
1952.....	259,105	1,650.19

* Figures for 1800 are as of Jan. 1.

Consumer Credit

(in millions of dollars)

Source: Federal Reserve Board.

End of year	Consumer Credit			
	Total*	Installment sale debt	Charge account sale debt	Cash loan debt†
1929.....	6,252	2,515	1,749	1,392
1932.....	3,493	999	1,114	889
1935.....	4,773	1,122	1,081	1,204
1937.....	6,513	1,805	1,292	1,745
1939.....	7,031	2,313	1,487	2,162
1940.....	8,163	2,792	1,544	2,503
1941.....	8,826	3,450	1,650	2,708
1942.....	5,692	3,744	1,764	1,914
1943.....	4,600	1,617	1,513	1,533
1944.....	4,976	882	1,498	1,598
1945.....	5,627	891	1,753	1,932
1946.....	8,677	942	1,981	3,101
1947.....	11,862	1,648	3,054	4,244
1948.....	14,366	3,086	3,612	5,021
1949.....	16,809	4,528	3,854	5,668
1950.....	20,097	7,904	4,239	6,887
1951.....	20,644	7,546	4,587	7,400
1952†.....	20,941	7,795	3,972	8,041

* Includes service credit.

† Installment and single-payment loans.

‡ End of June, preliminary.

UNITED STATES AND THE WORLD ECONOMY

U. S. Foreign Trade

Developments during 1951 were dominated by the defense build-up of the U. S. and the other free nations. The defense program is the key to the changes, both in volume and direction, which occurred in the pattern of U. S. trade.

Merchandise exports totaled \$15 billion, 46% more than 1950 and only $\frac{1}{2}$ of a billion dollars less than the all-time peak of 1947. The export total for 1951 reflects two major developments: first, increased commercial exports financed by the dollars earned from the record volume of imports which flowed into the U. S. after the Communist invasion of Korea; second, rapidly rising military and economic aid supplied by the U. S. under ECA, NATO and Point IV. Exports continued to surge during the first 6 months of 1952, hitting an annual rate of \$16 billion during this period. Expenditures by the Mutual Security Agency—which replaced ECA on Jan. 1, 1952—were the principal force behind this increase. Commercial exports showed a tendency to fall as other nations, hit by a new shortage of dollars, tightened import controls—particularly against U. S. exports.

Imports, in 1951, were at an all-time high of \$11 billion—24% above 1950, the previous record year. Imports during the

first 6 months were at an annual rate of \$12 billion. This reflected rapidly rising import prices as well as increased volume, as government stockpiling and purchases for industrial inventory reached peak levels. During the last half of 1951, imports slumped from levels reached earlier in the year. Import prices, as shown in Table II, declined after reaching a peak in the second quarter. Import volume also fell off as the rate of stockpiling was reduced and private industry stopped adding to inventory. Imports during the last 6 months of 1951, as indicated in Table I, were at an annual rate of \$9.9 billion—almost 18%

TABLE II

Indexes of U. S. Exports and Imports

Source: U. S. Department of Commerce.

Yearly average, year, and quarter	Quantity	Unit value	Value
Total exports of United States merchandise: ¹			
1936-38.....	100	100	100
1939-41.....	135	102	138
1942-44.....	269	148	399
1945.....	197	167	328
1946.....	206	158 ¹	325
1947.....	275	188	518
1948.....	214	200	428
1949.....	221	185	408
1950.....	193	180 ²	347
1951.....	247	206	508
1951:			
1st quarter.....	223	202	449
2nd quarter.....	258	210	543
3rd quarter.....	243	206	500
4th quarter.....	264	204	540
Imports for consumption:			
1936-38.....	100	100	100
1939-41.....	104	105	109
1942-44.....	97	140	136
1945.....	107	156	167
1946.....	113	173	196
1947.....	108	213	230
1948.....	123	235	288
1949.....	120	224	268
1950.....	146	242	355
1951.....	144	305	493
1951:			
1st quarter.....	163	295	481
2nd quarter.....	147	313	459
3rd quarter.....	131	312	411
4th quarter.....	136	299	406

TABLE I

United States Exports, Imports and Merchandise Trade

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Yearly average and year	Merchandise			Excess of exports
	Total exports ¹	General imports	Imports as per cent of exports	
1936-38....	2,967	2,489	83.9	478
1939-41....	4,115	2,763	67.1	1,352
1942-44....	11,819 ²	3,356	28.4	8,463
1945.....	10,527 ²	4,159	39.5	6,368
1946.....	10,185 ²	4,942	48.4	5,243
1947.....	15,340	5,756	37.5	9,584
1948.....	12,653	7,124	56.3	5,529
1949.....	12,051	6,622	54.9	5,429
1950.....	10,275	8,842	86.1	1,433
1951.....	15,020	10,962	73.0	4,058

¹ Exports, including re-exports. Data cover all merchandise shipped from the United States customs area with the exception of supplies destined to United States armed forces abroad for their own use. In addition to commercial trade, the data include aid and relief shipments largely made under the following programs: Lend-Lease in the war years; UNRRA in immediate postwar years, and civilian supplies sent to occupied areas through United States armed forces beginning 1944; ECA program beginning April 1948, and Mutual Defense Assistance Program beginning July 1950. ² Includes an estimate of civilian supply shipments beginning 1944.

¹ Apparent price decline is due to the diminishing part in total trade of lend-lease exports, which had shown a greater price rise during the war years than non-lend-lease goods. In 1945, the unit value of non-lend-lease exports was 144 (1936-38 as 100) as compared with 167, the unit value of total exports as shown in this table. ² Price decline is due in part to sales abroad during the year of considerable amounts of foodstuffs at prices well below market quotations in the United States. Such exports included sales from Government-owned surplus and shipments on which subsidies were paid by the Department of Agriculture.

TABLE III
Exports of Goods and Services and Means of Financing
 (Billions of dollars)

Source: U. S. Department of Commerce.

Period	Surplus of exports of goods and services ¹	Means of financing			
		U. S. government sources ² (net)	Liquidation of foreign gold and dollar assets ³ (net)	Outflow of United States private capital ⁴ (net)	Other means of financing ⁵ (net)
1936-38 average.....	0.5	...	0.2	-0.2	-0.1
1946.....	7.2	5.0	1.9	.4	.5
1947.....	11.5	5.8	4.5	.3	.4
1948.....	6.7	5.1	.8	.9	...
1949.....	6.2	5.9	...	.6	-.3
1950.....	2.3	4.3	-3.6	1.3	.3
1951.....	5.1	4.7	-.4	1.1	-.2

¹ Includes income on investments. ² Includes grants and loans but excludes subscription to the capital of the International Bank for Reconstruction and Development and the International Monetary Fund. ³ Includes net sales of gold to the U. S. and net liquidation of foreign dollar assets, including long-term investments. ⁴ Excludes liquidation of assets held by the International Bank and the International Monetary Fund. ⁵ Includes both long-term and short-term capital but excludes purchase of obligations of the International Bank. ⁶ Includes private gifts, net dollar disbursements by the International Bank and the International Monetary Fund, and allowance for errors and omissions.

below the first half. There was a recovery of total imports during the first half of 1952 as U. S. industry resumed foreign buying; imports during this period were at an annual rate of \$11 billion.

During 1950, imports reached a record \$8,842 million—34 per cent above the 1949 total of \$6,626 million. This movement has continued into 1951 with imports during this period at an annual rate of \$12,000 million.

Table I presents the value of U. S. exports, imports, and the balance of merchandise trade from 1936 to 1952; Table II shows the changes in quantity, unit value and total value of United States exports and imports.

The balance of trade which had fallen to \$1.4 billion in 1950, leading to the hope that the "dollar shortage" had been eliminated, widened appreciably in 1951—amounting to more than \$4 billion. Principal factor causing the increased trade surplus was the big increase in exports. Exports rose (1) because of increased defense needs of other nations; (2) because many countries relaxed import restrictions because of increased dollar earnings in late 1950 and early 1951.

Altogether, the difference between total U. S. receipts during 1951 on current account (\$20.2 billion) and U. S. payments to foreign countries (\$15.1 billion) amounted to \$5.1 billion. Foreign countries financed this deficit in their dealings with the U. S. by U. S. government grants and loans (\$4.7 billion) and by a net increase of U. S. private investment abroad (\$1.1 billion). During the year, foreign countries increased their holdings of U. S. gold and dollar reserves by \$400 million.

Table III shows how the surplus of American goods and services to other countries was financed for 1936-38, 1946-50, and 1951.

1951 marked a fundamental change in the U. S. program of postwar reconstruction and development. The ECA, which had administered the Marshall plan program, passed out of existence at the end of the year. It was succeeded by the Mutual Security Agency. The names of the agencies point up the shift in emphasis. European economic reconstruction was

TABLE IV
Industrial Production Indexes for Western Europe

Source: Mutual Security Program.
 (1938 = 100)

Country	1948	1949	1950	1951, 4th qtr.
Austria.....	85	114	134	—
Belgium.....	122	122	124	144
Denmark.....	135	143	159	159
France.....	111	122	123	144
Germany (Fed. Rep.)..	50	72	91	110
Greece.....	76	90	114	136
Ireland.....	135	154	170	—
Italy.....	99	109	125	146
Luxembourg.....	139	132	139	—
Netherlands.....	114	127	140	151
Norway.....	125	135	146	158
Sweden.....	149	157	164	181
Turkey.....	154	162	165	—
United Kingdom.....	120	129	140	149
Total.....	99	112	124	139
Excl. W. Germany..	119	130	138	140

TABLE V
ECA and MSA Allotments to
Participating Countries,
April, 1948-March, 1952
 (Millions of dollars)

Source: Mutual Security Agency.

Country or purpose	Direct Grants	Conditional Aid	Loans	Total ¹
United Kingdom.....	2,209.0	532.1	384.8	3,175.9
France.....	2,417.8	61.3	225.6	2,704.8
Italy.....	1,174.4	87.4	73.0	1,434.9
Germany (Fed. Rep.).....	1,111.8	218.6	17.0	1,347.3
Netherlands ²	880.4	31.6	166.7	1,078.7
Austria.....	616.1	4.7	....	665.8
Greece.....	547.7	....	....	643.0
Belgium-Luxemburg.....	32.4	446.0	68.1	546.6
Denmark.....	226.3	9.1	31.0	266.4
Norway.....	196.0	10.9	35.0	241.9
Turkey.....	62.4	17.3	72.8	184.5
Ireland.....	18.0	....	128.2	146.2
Sweden.....	....	86.7	20.4	107.0
Yugoslavia.....	92.8	....	....	92.8
Portugal.....	5.5	8.3	36.7	50.5
Trieste (F.T.I.).....	32.7	....	....	32.7
Iceland.....	13.9	3.5	4.3	27.2
Freight account.....	....	....	....	42.5
European Payments Union (U. S. contribution) ³	361.4	....	....	361.4
All countries.....	9,988.6	1,517.5	1,263.6	13,150.0

¹ Excludes GARIOA and funds for special programs such as technical assistance, strategic materials and relief shipments. ² Includes aid to Indonesia prior to July 1, 1950. ³ Consists of \$350 million, obligated on Oct. 12, 1950, to be expended in connection with the operations of the Union, and \$11,395,000, the amount by which Sweden's conditional aid allotment for 1950-51 was decreased and contributed to EPU on Feb. 28, 1952.

the objective of the Marshall plan; under the Mutual Security program, the stress is on building the defensive strength of the free nations. MSA provides two types of assistance to non-Communist countries—military and economic—to help support the nation's defensive strength. In addition, the Act provides for technical assistance to help the Point IV program. To carry out the Mutual Security program, Congress appropriated \$7.4 billion for the year ending June 30, 1952, and \$6.4 billion for the year ending June 1953. By the end of June 1952, it was estimated that the U. S. had supplied almost \$40 billion in grant aid and loans to speed reconstruction and promote economic development during the postwar period.

The ECA program, merged into the Mutual Security program on Jan. 1, 1952, was an outstanding success. Begun April 1, 1948, its objective was to restore, by a 4-year program, Europe's productive machine, badly damaged by the war. It sought to put Europe on its feet so that it might pay its own way. Under the pro-

gram, European production rose almost 50% in 3½ years. By the end of 1951, output of Marshall plan countries, excluding Western Germany, was 40% above prewar. Even before the end of 1951, 4 countries—the United Kingdom, Ireland, Belgium and Sweden—no longer required ECA. The stepped-up defense program of the free nations, however, is again causing balance-of-payments difficulties which are being met to a large extent by MSA funds. Table IV shows the recovery achieved by Marshall plan countries up to Jan. 1, 1952; Table V lists U. S. aid received by Western European countries from the beginning of the Marshall plan through the first quarter of 1952.

During the twenties the ratio of exports to the total production of movable goods averaged about 10 per cent. Table VI showing the ratio between exports and the total production of movable goods indicates that, while this proportion declined during the thirties and stood at 7.7 per cent in 1937, it increased to 12 per cent during 1944. The percentage of movable goods exported during 1951 was 8.9 per cent. Table VI shows commodity exports as a percentage of the production of movable goods in the U. S. from 1914-51.

On the other hand, the ratio of U. S. imports of goods to the gross national product ranged, during the prewar period, from a high of 5.9 per cent in 1920 to a low of 2.5 per cent in 1932. During the 10-year

TABLE VI
United States Production of Movable
Goods, Value of Exports, and the
Proportion Exported in Selected Years
 (in billions of dollars)

Source: U. S. Department of Commerce.

Year	Production of movable goods	Exports	Exports as percentage of production
1914.....	20.2	2.1	10
1919.....	47.5	7.8	16
1921.....	33.9	4.4	13
1925.....	47.2	4.8	10
1927.....	47.5	4.8	10
1929.....	53.2	5.2	10
1937.....	44.0	3.3	7.7
1939.....	41.9	3.1	7.5
1941.....	64.2	5.0	8
1943.....	113.1	12.6	11
1944.....	114.8	14.2	12
1945.....	102.9	9.6	9
1946.....	100.4	11.9*	11.9
1947.....	130.0	15.0	11.7
1948.....	137.5	12.5	9.1
1949.....	127.2	11.8	9.3
1950.....	142.3	10.3	7.0
1951.....	166.4	14.9	8.9

* Excluding 1.6 billion dollars of surplus property.

TABLE VII: United States Exports of Leading Commodities
(Value in millions of dollars. Commodities in each group are listed in order of value in 1951)

Source: U. S. Department of Commerce.

Commodity	Value		
	1949	1950	1951
Crude materials:			
Cotton, unmanufactured.....	874	1,024	1,416
Coal.....	297	269	586
Tobacco, unmanufactured.....	252	250	326
Crude petroleum.....	98	103	82
Foodstuffs:			
Grains and preparations.....	1,457	834	1,483
Fruits and vegetables.....	189	171	201
Meats and edible animal fats.....	144	107	195
Dairy products and eggs.....	200	103	153
Manufactures, including semimanufactures:			
Machinery*			
Industrial machinery.....	2,311	1,985	2,522
Electrical apparatus.....	1,322	1,106	1,363
Tractors, including parts and accessories.....	437	396	552
Agricultural implements.....	295	245	310
Chemicals and related products.....	128	109	141
Automobiles, including parts and accessories†	736	708	977
Motortrucks and busses, new.....	730	703	1,157
Passenger automobiles, new.....	229	217	387
Textiles and textile manufactures‡	206	179	340
Cotton cloth, duck, and tire fabric.....	656	516	815
Iron- and steel-mill products:	224	149	265
Total, including scrap.....	732	473	612
Total, excluding scrap.....	725	467	602
Petroleum products.....	463	397	701
Lubricating oils.....	169	174	265
Motor fuel and gasoline.....	146	90	168
Advanced manufactures of iron and steel.....	184	150	196
Paper and manufactures.....	94	90	179
Rubber manufactures.....	106	81	129

* Includes electrical apparatus, industrial machinery, office appliance, printing machinery, and agricultural machinery and implements. † Excludes service equipment. ‡ Includes finished products and yarns and other semimanufactures.

TABLE VIII: Imports for Consumption
(Value in millions of dollars. Commodities in each group are listed in order of value in 1951)

Source: U. S. Department of Commerce.

Commodity	Value		
	1949	1950	1951
Crude materials:			
Crude rubber.....	240	459	808
Wool, unmanufactured.....	222	427	714
Crude petroleum.....	341	367	375
Nonferrous ores and concentrates*	265	243	300
Vegetable fibers, except cotton.....	88	95	156
Hides and skins.....	73	118	133
Undressed furs.....	103	101	107
Oilseeds.....	95	105	104
Foodstuffs:			
Coffee.....	795	1,091	1,361
Cane sugar.....	372	380	387
Fruits, edible nuts, and vegetables.....	199	215	222
Cocoa or cacao beans.....	125	167	197
Meat products.....	72	113	187
Fish, including shellfish.....	112	157	158
Semimanufactures:			
Nonferrous metals, total.....	571	724	656
Copper.....	111	130	194
Tint.....	134	155	75
Wood pulp.....	182	240	352
Steel-mill products.....	66	131	342
Sawmill products§.....	112	264	229
Gas oil and fuel oil.....	127	204	208
Vegetable oils and fats, expressed.....	61	85	93
Finished manufactures:			
Paper and manufactures.....	453	473	544
Newsprint.....	438	453	513
Machinery.....	114	123	186
Burlaps.....	103	91	112
Wool manufactures.....	47	76	93
Cotton manufactures.....	43	65	69
Clocks, watches and parts.....	51	57	67
Vehicles and parts.....	21	34	57
Flax, hemp and ramie manufactures.....	31	41	40

* Incl. ores of ferroalloying metals. † Refined in ingots, plates or bars. ‡ Burs, blocks, pigs, scrap and alloy. § Except railroad ties, sugar-box stooks, and packing boxes.

TABLE IX
Merchandise Trade, by Economic Classes

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Yearly average, year, and quarter	Total		Crude materials		Foodstuffs		Semi- manufactures		Finished manufactures	
	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent
Exports of United States merchandise:¹										
1936-38.....	2,925	100	669	22.9	306	10.5	519	17.7	1,431	48.9
1947.....	15,162	100	1,601	10.6	3,105	20.5	1,785	11.8	8,670	57.2
1948.....	12,532	100	1,488	11.9	2,579	20.6	1,370	10.9	7,094	56.6
1949.....	11,936	100	1,780	14.9	2,228	18.7	1,356	11.4	6,573	55.1
1950.....	10,142	100	1,885	18.6	1,363	13.4	1,123	11.1	5,772	56.9
1951.....	14,868	100	2,471	16.6	2,242	15.1	1,663	11.2	8,492	57.1
1951:										
1st quarter.....	3,286	100	493	15.0	509	15.5	346	10.5	1,938	59.0
2nd quarter.....	3,973	100	581	14.6	665	16.7	431	10.8	2,296	57.8
3rd quarter.....	3,658	100	488	13.3	546	14.9	450	12.3	2,174	59.4
4th quarter.....	3,950	100	909	23.0	521	13.2	436	11.0	2,084	52.8
Imports for consumption:										
1936-38.....	2,461	100	760	30.9	720	29.3	503	20.4	478	19.4
1947.....	5,666	100	1,766	31.2	1,672	29.5	1,245	22.0	983	17.3
1948.....	7,092	100	2,148	30.3	2,002	28.2	1,632	23.0	1,310	18.5
1949.....	6,592	100	1,854	28.1	2,073	31.5	1,418	21.5	1,246	18.9
1950.....	8,735	100	2,463	28.2	2,645	30.3	2,123	24.3	1,504	17.2
1951.....	10,813	100	3,364	31.1	3,084	28.5	2,455	22.7	1,909	17.7
1951:										
1st quarter.....	2,961	100	923	31.2	900	30.4	699	22.6	469	15.8
2nd quarter.....	2,826	100	935	33.1	752	26.6	654	23.1	485	17.2
3rd quarter.....	2,526	100	819	32.4	660	26.1	573	22.7	473	18.7
4th quarter.....	2,500	100	687	27.5	772	30.9	559	22.4	482	19.3

¹ Beginning 1947 data include civilian supplies sent to occupied areas through the United States armed forces.

period 1920-29, the average ratio was 4.4 per cent; during the thirties it declined to 2.9 per cent. In 1951 the ratio reached a postwar high of 3.6 per cent.

Because the percentage of movable goods exported and the ratio of commodity imports to national income are small, there is a widespread belief that foreign trade is not important to the American economy. This view overlooks the importance of export markets to particular industries and the strategic character of many imports. Exports account for major percentages of the total United States production of cotton, leaf tobacco, dried fruit, lard, aircraft and parts, sewing machines, office appliances, mining machinery, tractors, petroleum products, sulfur, carbon black and naval stores. Volume exports mean the difference between profit and loss in many American industries.

Similarly, the United States is dependent upon imports to supply many goods essential to American security, living standards and the continued efficient operation of its industry. Coffee, bananas, cocoa, chicle, shellac, tin, antimony, cadmium, manganese, chrome, nickel, asbestos, mica, quartz crystals, natural rubber, silk, diamonds, burlaps, and cordage

fibres are almost entirely imported from abroad. In addition large imports of sugar, hides, furs, wool, wood pulp, newsprint, lead, zinc, copper, bauxite, waxes, tanning extracts, vegetable oils and crude petroleum are needed to augment short domestic production.

Tables VII and VIII list the principal United States commodity exports and imports from 1949 to 1951.

United States exports reflect the industrial character of the country, 57.1 per cent of total exports in 1951 consisting of finished manufactured goods. Semimanufactured goods accounted for 11.2 per cent, foodstuffs 15.1 per cent and crude materials 16.6 per cent. Food exports during 1951 constituted a higher percentage of total exports than prewar, reflecting the continued world shortage of foodstuffs. United States exports of foodstuffs averaged only 10.5 per cent of total exports prewar.

Crude materials represented the most important class of imported goods, amounting to 31.1 per cent of the total. Foodstuffs amounted to 28.5 per cent; semimanufactures 22.7 per cent; and finished manufactures 17.7 per cent. Foods not produced in the U. S. and raw mate-

TABLE X Total Exports, General Imports of Merchandise, by Countries
(Value in millions of dollars) *Source: U. S. Department of Commerce.*

Continent and country	Exports, including re-exports			General imports		
	1949	1950	1951	1949	1950	1951
Total¹	11,521.1	9,642.9	13,468.3	6,622.2	8,852.2	10,961.6
North America: Northern	1,919.6	1,995.8	2,588.5	1,552.4	1,961.6	2,277.0
Southern.....	1,307.3	1,418.6	1,702.2	941.3	1,139.0	1,221.3
South America	1,497.8	1,347.7	2,070.9	1,501.3	1,962.9	2,326.1
Europe²	4,044.9	2,952.4	4,103.0	980.7	1,448.9	2,116.7
Asia³	1,987.8	1,445.9	2,180.2	1,183.8	1,638.1	1,981.5
Oceania	173.3	133.2	242.6	125.4	208.1	450.3
Africa	590.5	349.4	580.9	337.5	493.6	588.8
NORTH AND SOUTH AMERICA						
Canada ⁴	1,919.3	1,995.5	2,588.2	1,551.0	1,960.5	2,274.6
20 American Republics.....	2,629.6	2,626.7	3,608.6	2,301.0	2,909.8	2,346.7
Mexico.....	453.7	512.0	711.4	243.5	315.4	325.8
Central America.....	256.9	254.5	222.7	139.0	178.7	212.5
Cuba.....	374.5	456.2	539.8	387.5	406.4	418.0
Colombia.....	167.5	229.1	226.2	241.5	313.2	362.1
Venezuela.....	502.1	392.3	455.8	278.1	323.6	323.9
Peru.....	81.8	71.0	114.7	40.2	48.8	60.7
Chile.....	138.4	70.2	165.9	152.5	159.7	203.2
Brazil.....	364.5	343.1	699.4	551.8	715.3	910.1
Uruguay.....	33.3	39.4	83.5	54.0	106.1	135.1
Argentina.....	123.6	142.0	233.4	97.5	206.1	219.6
Netherlands Antilles.....	74.7	69.1	68.1	111.4	157.8	159.4
EUROPE						
16 OEEC countries ⁵	3,885.3	2,817.2	3,826.4	842.3	1,260.4	1,910.9
Belgium.....	301.5	265.9	376.7	94.2	139.8	215.5
France.....	464.2	334.4	427.2	61.5	131.7	263.4
Germany.....	816.9	439.4	519.3	45.5	104.2	229.1
Italy.....	450.7	340.0	456.2	70.9	108.5	140.0
Netherlands.....	271.4	224.6	287.3	59.3	84.6	120.6
Sweden.....	80.7	97.0	134.2	54.4	71.3	104.4
Switzerland.....	137.9	128.0	193.4	93.1	109.7	133.9
United Kingdom.....	668.7	511.2	900.8	227.6	334.8	465.6
Turkey.....	82.8	59.1	60.1	55.7	61.5	76.4
Soviet Bloc ⁶	61.8	26.7	2.9	67.4	80.6	63.6
Other Europe:						
Finland.....	26.0	20.7	33.8	27.4	34.9	56.2
Spain.....	49.2	43.6	111.0	24.3	50.3	59.7
Yugoslavia.....	19.6	39.9	119.6	14.9	18.7	21.8
OTHER CONTINENTS						
Western Asia ⁷	337.5	218.1	296.4	114.5	152.2	190.7
Kuwait.....	22.2	3.2	6.1	38.8	41.8	34.0
Iran.....	77.0	33.2	34.6	16.4	23.6	34.5
Israel and Palestine.....	76.7	91.6	107.2	6.0	8.0	11.8
Saudi Arabia.....	81.5	32.1	53.3	19.9	24.4	29.9
Far East ⁸	1,823.6	1,361.0	2,126.5	1,194.7	1,694.1	2,241.1
British Malaya.....	36.2	19.7	57.8	195.5	310.0	425.4
China.....	67.5	36.5	(*)	106.4	146.0	44.8
Hong Kong.....	115.2	102.8	28.8	4.3	5.4	9.2
Japan.....	465.9	416.4	596.7	82.0	182.1	205.8
India.....	241.4	212.5	464.3	238.8	259.1	296.5
Pakistan.....	42.0	30.4	38.1	27.7	31.4	44.2
Indonesia.....	119.5	78.5	161.8	120.4	155.7	266.3
Philippines, Republic of.....	425.6	235.0	350.3	204.7	236.0	283.4
Australia.....	124.2	100.5	176.8	97.6	141.1	350.1
New Zealand.....	40.1	26.5	58.3	24.4	64.5	97.0
Africa: Belgian Congo.....	46.4	39.8	60.6	36.3	46.0	62.0
Western British Africa.....	14.0	11.9	17.4	82.4	99.7	140.4
Egypt.....	50.1	32.1	78.2	9.4	54.5	47.0
Union of South Africa.....	257.0	119.9	247.1	116.4	141.5	137.5
Sterling area countries ⁹	1,769.4	1,269.2	2,206.5	1,155.8	1,604.4	2,178.1

¹ Excluding "special category" exports. ² Turkey is included in Europe and excluded from Asia. ³ Canada includes Newfoundland and Labrador. ⁴ Includes Iceland, Norway, Denmark, Ireland, Austria, Portugal, Free Territory of Trieste, and Greece, in addition to countries shown. ⁵ Includes Albania, Bulgaria, Czechoslovakia, Estonia, Hungary, Latvia, Lithuania, Poland and Danzig, Rumania and U.S.S.R. ⁶ Asia other than Western Asia plus Oceania. ⁷ Exports of \$181 were medical books shipped under general license G-PUB. ⁸ Data cover trade with countries in sterling area as of Dec. 31, 1961.

rials for U. S. industry constituted the most important imports. Table IX presents a breakdown of U. S. exports and imports by economic classes.

Western hemisphere countries continued to be the leading market for U. S. exports and the most important source of U. S. imports. In 1951 Canada and other American Republics supplied 52 per cent of U. S. imports and bought about 43 per cent of total exports. The importance of western hemisphere countries in the foreign trade of the United States increased greatly during the war and postwar period—prior to these countries supplied only 34.7 per cent of U. S. imports and received 32.6 per cent of U. S. exports. As a result of the war, economic disruption and political developments, Europe and the Far East have declined in importance as sources of U. S. imports. From the 1936-38 period to 1951, imports from Continental Europe dropped from 29.1 to 19 per cent of total U. S. imports; imports from the Far East dropped from 30.4 to 20 per cent.

Latin America has expanded purchases of United States exports more than any other area. Compared with 16 per cent in the period 1936-38 and 22 per cent in 1946, American Republics received 25 per cent of total U. S. exports during 1951.

The 1951 total came to \$3,744 million, an increase of more than 7½ times over the prewar average, although lower than the peak value of \$3,858 million in 1947.

As usual, Canada was this country's trading partner. Exports to Canada totaled \$2,693 million—representing almost 18 per cent of the total.

Imports from Canada amounted to \$2,275 million, an increase of 16 per cent over 1950. Canadian imports accounted for more than 20 per cent of the U. S. total. Booming industrial activity in both countries accounted for the record trade volume.

The outstanding development of the year was a decline in the balance-of-payments position of other nations. The U. S. export surplus, which had been reduced to an annual rate of \$1.2 billion during the first quarter of 1951, rose rapidly to hit a rate of over \$6 billion annually during the last quarter (see Table I). Imports, which covered about 91 per cent of the cost of U. S. exports during the first quarter, amounted to only 61.6 per cent of exports during the last quarter. The mounting U. S. surplus created monetary problems for many nations—particularly Britain and France—which led to the restoration of tighter trade controls during the latter part of the year. This development has continued into 1952. Britain sustained a loss of more than \$1.5 billion in gold and monetary reserves during the last 6 months

of 1951, reducing them to a point not much above their position before the pound was devalued in Sept. 1949.

Another 1951 development was the virtual disappearance of trade with the 10 Soviet-bloc countries. Shipments dropped to less than \$3 million from \$27 million in 1950. Shipments had totaled almost \$62 million in 1949. Total U. S. exports to the Soviet Union amounted to only \$50,000 during 1951. Dwindling exports to Communist countries reflected the effects of the U. S. embargo on exports of goods which could be useful in aggression to the Soviet Union and its satellites.

Table X shows total exports and imports by leading countries and areas during the period 1949-51.

U. S. Foreign Investments

Before the First World War the United States was a debtor nation on capital account; foreign investments in the United States exceeded United States investments abroad by \$3.7 billion in 1914. World War I, however, completely changed this condition and by the end of 1919, United States investments abroad exceeded foreign investments in the United States by approximately \$3.7 billion. As a result of the great expansion of American foreign investments during the twenties, our net creditor position, excluding war debts, stood at \$8.8 billion in 1930 as compared with \$3.7 billion in 1919.

Foreign holdings in the United States, on the other hand, increased during the period 1933-39. Foreign capital, seeking safety from possible currency devaluation and the uncertainties of war, sought refuge through conversion into dollar holdings. Short-term dollar holdings of foreigners increased \$2.8 billion between 1933 and 1939, while foreign holdings of American securities largely purchased in the stock market, increased by \$1.4 billion. At the end of 1939, the net creditor position of the U. S. had declined to \$1.8 billion.

This movement gave way in 1940-41 to a reduction of foreign holdings, principally by the British, to finance war purchases here. After the entry of the United States into the war, however, foreign holdings in the United States increased as government expenditures abroad for the procurement of materials and for the pay and maintenance of troops resulted in substantial acquisitions of dollar balances by foreign countries. These large foreign dollar balances were largely maintained during 1946 so that the net creditor position of the U. S. amounted to only \$.8 billion at the end of that year.

During 1947 the net creditor position of the United States rapidly increased as foreign countries reduced their dollar balances, liquidated U. S. securities, and drew on American loans to finance the huge gap

**TABLE XI: Debtor-Creditor Position
of the U. S., End of 1949**
(in billions of dollars)

Source: U. S. Department of Commerce.

Investments	1949
U. S. investments abroad:	
Private.....	19.3
Long-term.....	17.8
Direct.....	12.5
Foreign dollar bonds.....	1.7
Securities payable in local currencies.....	2.0
Other long-term.....	1.5
Short-term.....	1.5
Deposits.....	.4
Other short-term.....	1.1
U. S. government.....	13.5
Long-term.....	13.2
Short-term.....	.3
Total U. S. investments abroad.....	32.8
Foreign investments in U. S.:	
Private.....	13.9
Long-term.....	7.8
Direct.....	3.1
Corporate stocks.....	2.7
Corporate bonds ¹.....	.5
Other long-term.....	1.6
Short-term.....	6.0
Deposits.....	5.6
Other short-term.....	.5
U. S. government obligations.....	3.8
Long-term.....	.5
Short-term.....	3.3
Total foreign investments in U. S.....	17.6
Net debtor (—) or creditor (+) position.....	+15.2

¹ Corporate bonds include an estimate of \$95,000,000 for state and municipal obligations. NOTE: No allowance has been made for the value of direct investments abroad damaged during the war, written off, or expropriated without compensation. Holdings of portfolio securities of former enemy countries, or countries where no realistic valuation is obtainable, have been excluded. The estimates are based chiefly on data collected by the U. S. Treasury Department during the war and published in *Census of Foreign-Owned Assets in the United States, 1945*, and *Census of American-Owned Assets in Foreign Countries, 1947*. These data were brought up to date on the basis of all available information, but they may be subject to error.

between their payments and receipts of dollars. The United States government increased its total loans by \$3.9 billion—largely as a result of drawings on the British loan—and the net increase in private long and short-term credit amounted to \$727 million. Foreign-held dollar assets were reduced by \$2.2 billion. As a result of these developments the net creditor position of the United States exceeded \$12 billion at the end of 1947.

The net creditor position of the U. S. has continued to increase since 1947, but at a slower rate. U. S. foreign aid during this period has been in grants rather than loans, and drains on foreign dollar holdings were reduced by restricting imports from the U. S. Moreover, the net outflow of private investment has not been large during the postwar period. Profitable investment opportunities at home, rampant

nationalism abroad, and foreign restrictions on the remittance of earnings and principal have slowed private capital exports.

Net private investment abroad increased by \$1.3 billion in 1950 and \$1.6 billion in 1951. Together with increases in U. S. government loans—mainly those of the Export-Import Bank—the net creditor position of the U. S. at the end of 1951 was about \$18 billion. Table XI gives a breakdown of the credit position of the U. S. at the end of 1949.

International Bank

The International Bank for Reconstruction and Development, established under the Bretton Woods Agreement, began operations in 1947.

The Bank has an authorized capital of \$10 billion, of which \$8,453.5 million has been subscribed by the 51 member nations. Burma and Ceylon were added to membership in the Bank in 1951; Poland, an original member, dropped its membership in 1950. In accordance with the Bank's charter only 20% of the subscribed capital has been paid in. As of Mar. 31, 1952, the aggregate paid-in capital was the equivalent of \$1,687.1 million, of which \$737 million was in gold or U. S. dollars.

In addition to its paid-in capital, the Bank may obtain funds through the sale of securities and is authorized to guarantee loans made by other agencies. Total loans and guarantees made by the Bank are limited to its subscribed capital. The Bank began its borrowing operations on July 15, 1947 and two bond issues totaling \$278 million in securities were sold in the U. S. An issue of \$100 million was refunded at a lower rate in 1950. Additional loan operations during 1951 and the first quarter of 1952 have added \$190 million to the Bank's lending power. The Bank has been broadening its operations by borrowing in nations other than the U. S.

Up to May 1952, 58 loans aggregating \$1,325.9 million were made to 27 countries. From Jan. 1, 1951 to May 31, 1952, the Bank made 14 loans totaling \$322.9 million. Of the total funds loaned by the Bank, up to this time, almost 87% has been in U. S. dollars. Table XII shows the amount and date of the loans made by the International Bank.

The Bank finances or assists in financing, on a non-political basis, projects for the reconstruction of war-damaged economies and for the development of underdeveloped countries. The loans made must be guaranteed by the borrowing country. The U. S. subscription to the Bank's capital is \$3,175 million and this country has approximately one-third of the voting control of the Bank.

During its first two years, the Bank's loans were predominantly to Europe for reconstruction. Since then, the Bank has directed its attention to development loans, particularly in Latin America.

Foreign Exchange

The obvious difference between foreign and ordinary domestic trade is the fact that the buyer and seller use different currency units. The United States exporter wants payments in dollars; the British importer uses sterling in making his purchases and sales. The price which the American importer pays for the foreign currency is called the rate of exchange. Like all prices, exchange rates are basically influenced by the forces of supply and demand. However, almost all governments now maintain fixed values for their currencies in terms of those of other countries.

American importers offer dollars to the banks in order to obtain foreign purchasing power. Consequently, importers and those who are making foreign payments, such as tourists traveling abroad, persons sending funds to relatives in foreign countries, and businessmen paying premiums to insurance companies abroad, create a demand for foreign currencies. Exporters selling to foreign buyers, motion picture companies receiving royalties on films exhibited abroad and investors receiving interest on foreign investments, create the supply of foreign currencies since the foreign debtor must offer his own currency to obtain the dollars with which to make payment to the American creditor.

A world picture of total supply of and demand for dollars over a period of a year is presented by the annual summary of our international balance of accounts. Figures for 1951 and the first half of 1952 appear in Table XIII.

It will be noted that this table shows how the excess of U. S. receipts over payments was financed. Except for the last half of 1951 and the first quarter of 1952, U. S. government grants and public and private credit were great enough to cover the excess without foreign countries being forced to draw on gold and dollar reserves.

Monetary Fund

The Monetary Fund was established to promote world trade by insuring the stability of exchange rates. Exchange instability had disrupted international trade during the thirties. Member nations under the Fund agreement are bound to maintain stable exchange rates and may not use exchange depreciation as a competitive weapon in seeking to expand foreign markets for their products.

Fifty-one nations are members of the Fund; total quotas amount to \$8,153.5 million, the United States subscription of

\$2,750 billions representing 33.7% of the total; this country exercises about 30% of the voting control of the Fund.

The Fund is basically a pool of the world's currencies. While currencies may be devalued to correct a fundamental disequilibrium in a country's balance of accounts, this action may be taken only after consultation with the Fund. When a member nation experiences a temporary shortage of foreign exchange—or the currency, of another member nation—it may, in effect, borrow the required currency from the Monetary Fund. The Fund began stabilization operations in March, 1947, and has (up to June 15, 1952) made loans totaling \$852.5 million, of which \$807.1 million has been in U. S. dollars. Stabilization loans have been made to 23 countries, including Australia, Belgium, Brazil, Chile, Costa Rica, Czechoslovakia, Denmark, Egypt, Ethiopia, France, India, Iran, Lebanon, Mexico, Netherlands, Nicaragua, Norway, Paraguay, Syria, Turkey, Union of South Africa, United Kingdom and Yugoslavia.

An outstanding use of the Fund's machinery to achieve orderly adjustments in

TABLE XII: Loans of the International Bank, May 31, 1952

(In millions of U. S. dollars)

Country ¹	Principal ²	Disbursed	Undisbursed
Australia.....	100.0	58.6	41.4
Belgium.....	86.0	20.7	65.3
Brazil.....	105.0	86.0	19.0
Chile.....	17.3	9.8	7.5
Colombia.....	29.9	17.1	12.8
Denmark.....	40.0	40.0	—
El Salvador.....	12.5	4.9	7.6
Ethiopia.....	8.5	3.5	5.0
Finland.....	34.6	12.5	22.1
France.....	250.0	250.0	—
Iceland.....	3.5	1.5	2.0
India.....	59.8	45.9	13.9
Iraq.....	12.8	3.6	9.2
Italy.....	10.0	—	10.0
Luxemburg.....	11.8	11.8	—
Mexico.....	89.8	34.5	55.3
Netherlands.....	221.9	212.4	9.5
Nicaragua.....	5.3	1.4	3.9
Pakistan.....	27.2	—	27.2
Paraguay.....	5.0	—	5.0
Peru.....	2.5	—	2.5
Thailand.....	25.4	8.4	17.0
Turkey.....	25.4	.9	24.5
U. of So. Africa.....	50.0	19.5	30.5
U. K. (So. Rhodesia).....	28.0	—	28.0
Uruguay.....	33.0	5.3	27.7
Yugoslavia.....	30.7	5.5	25.2
Total.....	1,325.9	853.8	472.1

¹ Loans are made directly to member governments or to official institutions and private concerns. Loans not made directly to members are guaranteed by the member, or its central bank or comparable agency.

² Principal after cancellations.

international currency value was the British devaluation in 1949. After consultation with the Fund, Britain announced on Sept. 18 a 30.5% devaluation of sterling. By the end of the month, 25 other countries announced adjustments of their exchange rate. These devaluations ranged from 9.1% by Canada to 30.5% by most countries of the sterling area.

These adjustments, which were approved by the Fund, seem to have helped bring prices in different countries into better alignment and to have restored price competition in international markets.

The 5-year postwar adjustment period during which member nations of the Fund

may maintain exchange restrictions, expired Mar. 1952. Thereafter, they may not be continued without approval of the Fund. However, only 7 member nations do not maintain exchange controls. Besides the U. S., these include Canada, El Salvador, Guatemala, Honduras, Mexico and Panamá. Although the Fund is trying to end exchange controls, a widespread lifting of controls does not appear likely in the immediate future. Table XIV lists the par values of the Fund's member nations.

Trade Agreements

The economic warfare of the thirties brought distress to all of the nations of the world—to those imposing the trade

TABLE XIII
International Transactions of the United States, 1949-52
(Millions of dollars)

Source: U. S. Department of Commerce.

Type of transaction	1949 total	1950 total	1951					1952	
			Total	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter ¹
Exports of goods and services:									
Recorded goods.....	12,052	10,275	15,020	3,335	4,019	3,691	3,976	3,996	4,100
Other goods ²	285	383	466	69	84	158	154	159	80
Total goods.....	12,337	10,658	15,486	3,404	4,103	3,849	4,130	4,155	4,180
Services.....	2,232	2,024	2,741	567	715	739	720	721	735
Income on investments.....	1,405	1,743	1,992	396	467	459	670	418	485
Total exports.....	15,974	14,425	20,219	4,367	5,285	5,047	5,520	5,294	5,400
Imports of goods and services:									
Recorded goods.....	6,622	8,852	10,964	3,035	2,981	2,496	2,453	2,776	2,700
Other goods ²	444	463	704	179	151	181	192	189	200
Total goods.....	7,066	9,315	11,668	3,214	3,132	2,677	2,645	2,965	2,900
Services.....	2,184	2,376	3,047	601	705	904	837	850	945
Income on investments.....	353	437	398	99	98	90	111	94	95
Total imports.....	9,603	12,128	15,113	3,914	3,935	3,671	3,593	3,909	3,940
Surplus of exports of goods and services:									
Recorded goods.....	5,430	1,423	4,056	300	1,038	1,195	1,523	1,220	1,400
Other goods ²	-159	-80	-238	-110	-67	-23	-38	-30	-120
Total goods.....	5,271	1,343	3,818	190	971	1,172	1,485	1,190	1,280
Services.....	48	-352	-306	-34	10	-165	-117	-129	-210
Income on investments.....	1,052	1,306	1,594	297	369	369	559	324	390
Total surplus of exports.....	6,371	2,297	5,106	453	1,350	1,376	1,927	1,385	1,460
Means of financing surplus of exports of goods and services:									
Liquidation of gold and dollar assets by foreign countries and by international institutions.....	57	-3,629	-442	-892	-149	294	305	372	-300
U. S. Government sources (net):									
Grants and other unilateral transfers.....	5,321	4,120	4,501	1,031	1,252	1,128	1,090	822	1,170
Long- and short-term loans.....	647	164	163	61	80	34	-12	133	150
U. S. private sources:									
Remittances.....	522	481	412	109	99	90	114	95	90
Long- and short-term capital.....	609	1,317	1,066	237	312	3	514	233	350
Total means of financing.....	7,156	2,453	5,700	546	1,594	1,549	2,011	1,655	1,460
Errors and omissions.....	-785	-156	-594	-93	-244	-173	-84	-270	.....

¹ Estimates based on incomplete data; second quarter by Council of Economic Advisers. ² Includes goods sold to or bought from other countries that have not been shipped from or into the United States customs area, and other adjustments.

restrictions as well as those against whom the restrictions were aimed. This economic warfare was one of the most potent causes of the Second World War.

The realization of this truth has influenced United States foreign policy during the postwar period. The United States has taken the lead in proposing the renunciation of economic warfare and a co-operative approach to the restoration of world trade and prosperity. The American program includes the mutual scaling down of tariffs under the Reciprocal Trade Agreements program, the establishment of an International Trade Organization and the adoption of a trade charter in which the nations of the world will agree to eliminate restrictive trade practices. It also includes exchange stabilization through the Monetary Fund, and loans, either direct or through the World Bank, to assist in the reconstruction of war-shattered economies and the development of industrially backward areas.

An outstanding achievement in the American program to bring about freer international trade was the conclusion on October 30, 1947 at Geneva of the General Agreement on Tariffs and Trade. The scope of the Agreement is indicated by the fact that the 23 participating countries accounted for more than three-quarters of the world's prewar international trade. The tariff concessions resulting from the Geneva negotiations listed over 45,000 separate items and covered approximately two-thirds of the trade between the participating countries.

A second round of tariff negotiations was held at Annecy, France, in 1949. Agreements were concluded with ten additional nations, raising the number subscribing to the General Agreement on Tariffs and Trade to 33. At Annecy, the U. S. granted tariff concessions on about 400 items, representing 3 per cent of total imports.

A third round robin of tariff reductions took place in Torquay, England, September 1950 to April 1951. At this conference, the U. S. concluded agreements with six additional countries: Austria, Western Germany, Indonesia, Korea, Peru and Turkey. In addition, new concessions were negotiated with 12 countries which were already parties to the General Agreement on Tariffs and Trade. In the Torquay negotiations, the U. S. received concessions on an estimated half billion dollars of 1949 exports.

Through the trade-agreements program, the incidence of the U. S. tariff has been greatly reduced. Tariffs on imports of dutiable goods, which averaged 53 per cent in 1930-33 under rates established by the Hawley-Smoot Act, have been reduced to less than 15 per cent. Despite the concessions granted, however, rates on many products, particularly manufactured goods,

TABLE XIV

Par Values of Member Currencies*

Source: International Monetary Fund.

Member	Currency	U. S. cents per currency unit	Currency units per U. S. dollar
Australia.....	Pound	224.000	.446 429
Austria.....	Schilling	↑	↑
Belgium.....	Franc	2.000 00	50.000 0
Bolivia.....	Boliviano	1.666 67	60.000 0
Brazil.....	Cruzeiro	5.405 41	18.500 0
Burma.....	Rupee	↑	↑
Canada.....	Dollar	**	**
Ceylon.....	Rupee	21.000 0	4.761 90
Chile.....	Peso	3.225 81	31.000 0
China.....	Yuan	↑	↑
Colombia.....	Peso	51.282 5	1.949 98
Costa Rica.....	Colón	17.809 4	5.615 00
Cuba.....	Peso	100.000	1.000 00
Czechoslovakia.....	Koruna	2.000 00	50.000 0
Denmark.....	Krone	14.477 8	6.907 14
Dominican Republic.....	Peso	100.000	1.000 00
Ecuador.....	Sucre	6.666 67	15.000 0
Egypt.....	Pound	287.156	.348 242
El Salvador.....	Colón	40.000 0	2.500 00
Ethiopia.....	Dollar	40.250 0	2.484 47
Finland.....	Markka	.434 783	230.000
France.....	Franc	↑	↑
Greece.....	Drachma	↑	↑
Guatemala.....	Quetzal	100.000	1.000 00
Honduras.....	Lempira	50.000 0	2.000 00
Iceland.....	Króna	6.140 36	16.285 7
India.....	Rupee	21.000 0	4.761 90
Iran.....	Rial	3.100 78	32.250 0
Iraq.....	Dinar	280.000	.357 143
Italy.....	Lira	↑	↑
Lebanon.....	Pound	45.631 3	2.191 48
Luxemburg.....	Franc	2.000 00	50.000 0
Mexico.....	Peso	11.560 7	8.650 00
Netherlands.....	Guilder	26.315 8	3.800 00
Nicaragua.....	Córdoba	20.000 0	5.000 00
Norway.....	Krone	14.000 0	7.142 86
Pakistan.....	Rupee	30.225 0	3.308 52
Panama.....	Balboa	100.000	1.000 00
Paraguay.....	Guaraní	16.666 7	6.000 00
Peru.....	Sol	.....	.....
Philippines.....	Peso	50.000 0	2.000 00
Sweden.....	Krona	19.330 4	5.173 21
Syria.....	Pound	45.631 3	2.191 48
Thailand.....	Baht	↑	↑
Turkey.....	Lira(pound)	35.714 3	2.800 00
Union of South Africa.....	Pound	280.000	.357 143
United Kingdom.....	Pound	280.000	.357 143
United States.....	Dollar	100.000	1.000 00
Uruguay.....	Peso	↑	↑
Venezuela.....	Bolívar	29.850 7	3.350 00
Yugoslavia.....	Dinar	.333 333	300.000

* As of June 16, 1952. † Par value not yet established.

‡ Since Jan. 26, 1948, no par value agreed with Fund.
 § In Nov. 1949, Peru introduced a new exchange system under which the par value of 6.50 soles per U. S. dollar, agreed on Dec. 18, 1946, will no longer govern any transactions. No new par value has been proposed to the Fund. ** No fixed value. Has been at a premium in terms of U. S. dollars during 1952.

remain so high as to make sales in the U. S. difficult.

The Reciprocal Trade Agreements Act under which U. S. tariff negotiations are conducted was originally passed in

TABLE XV

U. S. Trade Agreements Signed

Country	Signed	Effective
Argentina.....	Oct. 14, 1941	Nov. 15, 1941
Australia.....	Oct. 30, 1947	Jan. 1, 1948
Austria.....	April 21, 1951	Oct. 19, 1951
Belgium.....	April 21, 1951	June 6, 1951
Brazil.....	April 21, 1951	Not ratified
Burma.....	Oct. 30, 1947	July 30, 1948
Canada.....	April 21, 1951	June 6, 1951
Ceylon.....	Oct. 30, 1947	July 30, 1948
Chile.....	Oct. 30, 1947	March 16, 1949
China.....	Terminated	
Colombia.....	Sept. 13, 1935	May 20, 1936
Costa Rica.....	Nov. 28, 1936	Aug. 2, 1937
Cuba.....	Oct. 30, 1947	Jan. 1, 1948
Czechoslovakia.....	Terminated	
Denmark.....	April 21, 1951	Feb. 20, 1952
Dominican Republic.....	April 21, 1951	June 6, 1951
Ecuador.....	Aug. 6, 1938	Oct. 23, 1938
El Salvador.....	Feb. 19, 1937	May 31, 1937
Finland.....	Oct. 10, 1949	May 25, 1950
France.....	April 21, 1951	June 6, 1951
Greece.....	Oct. 10, 1949	March 9, 1950
Guatemala.....	April 24, 1936	June 15, 1936
Haiti.....	Oct. 10, 1949	Jan. 1, 1950
Honduras.....	Dec. 18, 1935	March 2, 1936
Iceland.....	Aug. 27, 1943	Nov. 19, 1943
India.....	Oct. 30, 1947	July 9, 1948
Indonesia.....	April 21, 1951	Nov. 19, 1951
Iran.....	April 8, 1943	June 28, 1944
Italy.....	April 21, 1951	Nov. 19, 1951
Korea.....	April 21, 1951	Not ratified
Lebanon.....	Oct. 30, 1947	July 30, 1948
Liberia.....	Oct. 10, 1949	May 20, 1950
Luxemburg.....	April 21, 1951	June 6, 1951
Mexico.....	Terminated	
Netherlands.....	April 21, 1951	June 6, 1951
New Zealand.....	Oct. 30, 1947	July 31, 1948
Nicaragua.....	Oct. 10, 1949	May 28, 1950
Norway.....	April 21, 1951	August 2, 1951
Pakistan.....	Oct. 30, 1947	July 31, 1948
Paraguay.....	Sept. 12, 1946	April 9, 1947
Peru.....	April 21, 1951	Oct. 8, 1951
Southern Rhodesia.....	Oct. 30, 1947	July 12, 1948
Sweden.....	April 21, 1951	July 7, 1951
Switzerland.....	Jan. 9, 1936	Feb. 15, 1936
Syria.....	Oct. 30, 1947	July 31, 1948
Turkey.....	April 21, 1951	Oct. 17, 1951
Union of South Africa.....	Oct. 30, 1947	June 14, 1948
United Kingdom.....	Oct. 30, 1947	Jan. 1, 1948
Uruguay.....	July 21, 1942	Jan. 1, 1943
Venezuela.....	Nov. 6, 1939	Dec. 16, 1939
Western Germany.....	April 21, 1951	Oct. 1, 1951

1934 and was last extended in 1951 for a two-year period. Under the provisions of the Act, the President is authorized to seek concessions from foreign countries for American trade and commerce in return for similar concessions granted their products by the United States. The President has the power to increase or decrease tariff rates (since the 1945 extension, those in effect on January 1, 1945) by 50 per cent.

The 1951 extension of the Act put curbs on the President's power in making concessions. Under the so-called "peril points"

provision, the Tariff Commission must advise the President on the limits beyond which concessions could not be made without endangering U. S. industry. It also requires that "escape clauses" be included in all agreements which permit the termination of concessions granted by the U. S. if injury to American industry results. In addition, the 1951 extension directed the President to take steps to deny the Soviet Union and its satellites all concessions granted by the U. S. under the Reciprocal Trade Agreements program.

By July 1, 1952, all concessions had been withdrawn from Soviet-bloc countries. This means imports from there are dutiable at the high rates of the Tariff Act of 1930.

A growing spirit of protectionism in the U. S., which developed during 1951 and extended into 1952, caused international concern. The so-called "cheese amendment" to the Defense Production Act of 1951 had the effect of placing sharp restrictions on cheese imports. This caused protests from several nations, including a formal protest from Italy. Requests for increased protections under the "escape clause" procedure also greatly increased over the previous year, and the Tariff Commission received almost as many petitions for greater tariff or quota protection as it did during the entire postwar period up to that time. The number of "escape-clause" petitions led to protest by Britain in the spring of 1952. The administration, however, reaffirmed the policy of moving toward freer trade conditions through the Reciprocal Trade Agreement program.

Since 1934, reciprocal trade agreements have been concluded with 53 nations (see Table XV), with which we did more than 80 per cent of our normal foreign trade and which includes nine of our ten best customers in 1937. The agreement with Mexico, however, has been terminated, effective Jan. 1, 1951.

Led by the United States, representatives of 53 nations signed the charter of the International Trade Organization in Havana on March 24, 1948. The charter provides a set of rules under which world trade is to be conducted on a freer, non-discriminatory basis. It seeks to outlaw economic warfare between nations. The charter provides that a U. N. agency, the International Trade Organization, is to be set up to administer the rules.

The charter will become effective 60 days after the 20th country ratifies the document. Few countries, however, have ratified, and no effort was made to secure U. S. ratification at either the 1951 or 1952 sessions of Congress. Meanwhile, the trading rules set up in the General Agreements on Tariffs and Trade are being observed by the participating countries.

THE FEDERAL TAX SYSTEM

The Internal Revenue Code is the basic tax law of the Federal Government. Although it provides for many types of taxes, such as gift, estate, excise, stamp, etc., its chief feature is the income tax, both individual and corporate.

Tax on Individuals

Who is liable: If you've earned \$600 or more during the year you must file a return and pay the tax due. This is required whether you're single, married, divorced, widowed or under 21. Also, if you earned less than \$600 but received other income from interest, dividends, rents, pensions, etc., which brings your income up to \$600, a return is required.

Certain individuals are also subject to self-employment tax, which is computed on the income-tax return, even though it is a social-security tax. If you are subject to this tax and your earnings are \$400 or more, you must file an income-tax return.

What are your deductions: The more deductions you have, the less tax you pay. You have a choice of listing your deductions or claiming a "blanket" deduction equal to about 10% of your adjusted gross income. Examples of actual deductions include the average individual may take are: business expenses, auto-damage loss, auto-license fees, bad debts, uninsured casualty losses, charitable contributions (within limits), medical expenses (within limits), state income, gasoline, sales, and property taxes, interest on loans, mortgages, etc., and union dues.

The optional deduction is used in place of actual deductions and amounts to roughly 10 per cent of the taxpayer's income after business and employment expenses have been deducted. However, the maximum optional deduction is \$1,000 for single persons or married people filing joint returns and only \$500 for married persons filing separate returns.

What are your exemptions: The taxpayer is entitled to a \$600 exemption for himself and each of his dependents. To claim someone as a dependent you must furnish over half the money spent for his support, his taxable income must be less than \$600, and he must be closely related to you. These are considered "close" relatives:

- Son and daughter (including an adopted child), grandchild, great-grandchild, etc.
- Stepchild
- Son-in-law and daughter-in-law
- Parents, grandparents, etc.
- Stepfather and stepmother
- Father-in-law and mother-in-law
- Brother, sister, half-brother, half-sister
- Brother-in-law and sister-in-law

Uncle, aunt, nephew and niece (but not if related to you only by marriage)

The taxpayer's wife is entitled to a \$600 exemption for normal tax and for surtax, whether on a separate or a joint return. But the husband may claim his wife's \$600 exemption on *his separate return* if she has no income and is not claimed as a dependent by another taxpayer.

Any taxpayer 65 years or older is entitled to a special \$600 exemption *in addition* to his regular \$600 personal exemption. An additional \$600 exemption is also available where a taxpayer's spouse reaches 65. To get this additional exemption, the taxpayer himself need not be 65. If both are 65 or over, there will be two additional exemptions of \$600 each, one for the husband and one for the spouse.

A blind taxpayer is entitled to a \$600 special exemption. This exemption for the blind is in addition to the \$600 personal exemption and the \$600 old age exemption. A special \$600 exemption is also available for a spouse who is blind even though the taxpayer is not. This exemption also is in addition to the spouse's personal and old age exemptions.

The extra old age exemption and exemption for the blind are available only to a taxpayer and his spouse. There is no additional \$600 exemption for supporting a dependent who is 65 or over or blind.

Tax rates: The basic individual tax consists of a flat percentage (called the normal tax) on normal-tax net income and a graduated percentage (called the surtax) on surtax net income.

For 1952, there is a normal tax of 3% and a surtax scaled from 19.2% to 89%. The maximum total tax cannot exceed 88% of net income.

As an example of the tax computation, assume that a single individual has a 1952 net income of \$1,800 after deductions and exemptions. Since this falls into the first bracket (\$0-\$2,000) the tax is determined by multiplying \$1,800 by 22.2%. This gives a tax due of \$399.60.

Or, assume that the same individual has net income of \$4,500:

Tax on \$4,000	\$936
Tax on next \$500 at 29%	145
Tax due	\$1,081

Husband-wife income splitting: A husband and wife, regardless of whether they live in a community property or a non-community property state, are entitled to split their combined income for tax purposes by filing a joint return.

Where one spouse earns more than the other, the exercise of this privilege to split

Taxpayer Not Head of Household (Combined normal tax and surtax)

Net income after deductions and exemptions		Tax on amount in Col. 1	Plus this % of excess
(Column 1) More than	(Column 2) But not over		
0	2,000.00	0	22.2%
\$ 2,000.00	4,000.00	\$ 444.00	24.6
4,000.00	6,000.00	936.00	29.0
6,000.00	8,000.00	1,516.00	34.0
8,000.00	10,000.00	2,196.00	38.0
10,000.00	12,000.00	2,956.00	42.0
12,000.00	14,000.00	3,796.00	48.0
14,000.00	16,000.00	4,756.00	53.0
16,000.00	18,000.00	5,816.00	56.0
18,000.00	20,000.00	6,936.00	59.0
20,000.00	22,000.00	8,116.00	62.0
22,000.00	26,000.00	9,356.00	66.0
26,000.00	32,000.00	11,996.00	67.0
32,000.00	38,000.00	16,016.00	68.0
38,000.00	44,000.00	20,096.00	72.0
44,000.00	50,000.00	24,416.00	75.0
50,000.00	60,000.00	28,916.00	77.0
60,000.00	70,000.00	36,616.00	80.0
70,000.00	80,000.00	44,616.00	83.0
80,000.00	90,000.00	52,916.00	85.0
90,000.00	100,000.00	61,416.00	88.0
100,000.00	150,000.00	70,216.00	90.0
150,000.00	200,000.00	115,216.00	91.0
200,000.00		160,716.00	92.0

(If the income includes any partially exempt interest, the tax is reduced by 3% of that interest, or by 3% of net income, if less than the interest.)

income will almost always result in a lower tax burden by subjecting the income to lower surtax rates.

The actual method of computing the "split-income" tax on a joint return is to arrive at the taxable net income and divide that in half. The tax is then calculated on half. The final tax due is double the amount of tax figured on one-half. Note that a husband and wife are entitled to split their income for tax purposes even though the wife has neither income nor deductions of her own.

To show how the split income computation is made, assume a married taxpayer has a net income in 1952 of \$12,000 after deductions and exemptions. He files a joint return with his wife. In figuring the tax, he divides the \$12,000 income in half. He then computes the tax on \$6,000. This equals \$1,516. He then multiplies that amount by 2 to arrive at the final tax liability, which is \$3,032.

Head of a household: For 1952 and later years, Congress eased the tax burden of unmarried individuals who maintain a household which includes one or more children, grandchildren, parents, or other specified relatives. A single person who meets the requirements of "head of a household" computes his tax under special surtax rates. These rates, which are shown on page 335, are lower than those applicable to other individuals and are designed to give the head of a household roughly half the benefits obtained by married taxpayers through income splitting on

joint returns. The total tax under these rates cannot exceed 88% of net income.

Here are the main requirements which you must meet to qualify as head of a household:

(1) You must be unmarried or legally separated at the end of the year. However, if your spouse died *during* the year, you cannot qualify, even though you are not remarried by the end of the year.

(2) During the year, you must have furnished over half the cost of maintaining a household which includes one of the following:

(a) An unmarried child, descendant of a child, or stepchild, whether or not he entitles you to a \$600 dependency exemption, or

(b) Any relative who does entitle you to a dependency exemption.

Servicemen: An enlisted man, warrant officer or commissioned warrant officer is exempt from tax on all service pay received for any month in which (1) he had *any* active service in Korea after June 24, 1950; or (2) he was hospitalized as a result of wounds, disease or injury incurred in such service. Commissioned officers are exempt on the first \$200 of pay for such month. Income-tax liability of servicemen dying in Korea or dying as a result of Korean service after June 24, 1950 is cancelled.

Paying the tax: To keep the collection of individual taxes on a current basis, two devices are used: (1) the withholding tax

and (2) the declaration and payment of estimated tax. Withholding simply makes employers agents of the government in collecting taxes from employees. Through the use of withholding tables, a proportionate amount of the employee's expected tax liability is determined and deducted from each payment of salary. If, at the end of the year, it appears that too much has been withheld, the employee gets a tax refund; if not enough has been withheld, the employee sends in the difference with his tax return.

Since the wage withholding method does not place on a current basis, taxpayers receiving dividends, interest, profits from business, etc., and wage earners whose tax will exceed the amount required to be withheld on wages, these taxpayers file a declaration early in the year estimating their current year's taxes and pay it in quarterly installments. As in the case of withholding, any overpayment or underpayment of tax is adjusted in the return covering the entire year.

Employees whose final tax will exceed the amount withheld from wages at the required rate can voluntarily arrange with their employers to have tax withheld at an increased rate. By doing this the quarterly payments of estimated tax which the employee would otherwise have to make can be reduced or entirely eliminated.

What form to use:

FORM 1040A. Lower bracket taxpayers whose earnings are primarily from salaries may file a simplified Form 1040 A. This eliminates the necessity of any tax computation by the taxpayer, since the collector computes the actual amount of tax liability. His calculation will be on the basis of the tax table which is part of Form 1040, and which automatically allows the standard deduction of approximately 10%. If any additional tax is due, the collector will send the taxpayer a bill for the amount. If the amount of taxes withheld from wages plus any amount paid as an estimated tax exceed the total tax due, a refund will be sent to the taxpayer. A taxpayer qualifying as head of a household cannot obtain the benefit of special rates if he files Form 1040 A. He must file Form 1040.

FORM 1040. Every individual who does not meet all the requirements of Form 1040A, or who wants to make his own computations, must use Form 1040. If his adjusted gross income is less than \$5,000 and he is otherwise qualified, he may convert the form into a "short" form by tearing off pages 3 and 4, filing only pages 1 and 2. If he does so, he must use the tax table method of computing his liability.

Partnerships: A partnership as such does not pay tax. The individual partners pick up their share of the partnership net profit.

Head of a Household (Combined normal tax and surtax)

Net income after deductions and exemptions

(Column 1) More than	(Column 2) But not over	Tax on amount in Column 1	Plus this % of the excess
0	\$ 2,000.00	0	22.2%
\$ 2,000.00	4,000.00	\$ 444.00	23.4
4,000.00	6,000.00	912.00	27.0
6,000.00	8,000.00	1,452.00	29.0
8,000.00	10,000.00	2,032.00	34.0
10,000.00	12,000.00	2,712.00	35.0
12,000.00	14,000.00	3,412.00	41.0
14,000.00	16,000.00	4,232.00	44.0
16,000.00	18,000.00	5,112.00	47.0
18,000.00	20,000.00	6,052.00	48.0
20,000.00	22,000.00	7,012.00	52.0
22,000.00	24,000.00	8,052.00	54.0
24,000.00	28,000.00	9,132.00	57.0
28,000.00	32,000.00	11,412.00	60.0
32,000.00	38,000.00	13,812.00	63.0
38,000.00	44,000.00	17,592.00	66.0
44,000.00	50,000.00	21,552.00	71.0
50,000.00	60,000.00	25,812.00	72.0
60,000.00	70,000.00	33,012.00	73.0
70,000.00	80,000.00	40,312.00	77.0
80,000.00	90,000.00	48,012.00	79.0
90,000.00	100,000.00	55,912.00	81.0
100,000.00	150,000.00	64,012.00	85.0
150,000.00	200,000.00	106,512.00	88.0
200,000.00	300,000.00	150,512.00	91.0
300,000.00		241,512.00	92.0

(If the income includes any partially exempt interest, the tax is reduced by 3% of that interest, or by 3% of net income, if less than the interest.)

or loss and report it in their individual returns.

Estates and trusts: Every fiduciary (except a receiver who is in possession of only part of an individual's property), or one of two or more joint fiduciaries must file a return for the following individuals, estates and trusts for which he acts:

(a) Every individual whose gross income for the taxable year is \$600 or more;

(b) Every estate which has a gross income of \$600 or more;

(c) Every trust which has a *net* income of \$100 or more, or which has a *gross* income of \$600 or more;

(d) Every estate or trust of which any beneficiary is a nonresident alien.

Corporate Taxes

Corporate income-tax rates for the calendar year 1952 are 30% normal tax on all income and 22% surtax on income over \$25,000.

In addition to income taxes, corporations are subject to an excess-profits tax at the rate of 30% on adjusted excess-profits net income. This is net income after certain excess-profits-tax adjustments, *less* a special excess-profits credit allowed to reflect normal earnings. The minimum annual credit is \$25,000. The excess-profits tax computed under the 30% rate is sub-

ject to specified ceilings. For the calendar year 1952, the ceiling rate applicable to most ordinary business corporations is 18% of excess-profits net income.

Corporations which unreasonably accumulate earnings to avoid the surtax on individual stockholders are also subject to a 27½-38½% penalty surtax.

Gift Tax

Individuals who make gifts are subject to a gift tax based on the value of the property given. However, exemption is provided for a certain amount of gifts and the tax does not apply until the exemption is exceeded. The exemptions work thus:

During his lifetime, an individual may give away \$30,000 taxfree. In addition, the first \$3,000 of gifts made by him to each person in any one year is also exempt. For example, a taxpayer may give his wife and child \$3,000 apiece each year without incurring gift tax and without using up any of his \$30,000 lifetime exemption.

Gifts by husbands and wives:

Husbands and wives are entitled to special tax advantages regardless of whether the taxpayers live in a community property or a non-community property state.

1. *Gifts between husband and wife:* On every gift made from husband to wife, or vice versa, in a non-community property

After deducting exemptions, the value of gifts is taxed at the following rates:

(A) Amount of net gifts equaling—	(B) Amount of net gifts not exceeding—	(C) Tax on amount in column (A)	(D) Rate of tax on excess over amount in column (A) Per Cent
\$ 5,000	\$ 5,000		21¼
10,000	10,000	\$ 112.50	5¼
20,000	20,000	375.00	8¼
30,000	30,000	1,200.00	10½
40,000	40,000	2,250.00	13½
50,000	50,000	3,600.00	16½
60,000	60,000	5,250.00	18¾
100,000	100,000	7,125.00	21
250,000	250,000	15,525.00	22½
500,000	500,000	49,275.00	24
750,000	750,000	109,275.00	26¼
1,000,000	1,000,000	174,900.00	27¾
1,250,000	1,250,000	244,275.00	29¼
1,500,000	1,500,000	317,400.00	31½
2,000,000	2,000,000	396,150.00	33¾
2,500,000	2,500,000	564,900.00	36¾
3,000,000	3,000,000	748,650.00	39¾
3,500,000	3,500,000	947,400.00	42
4,000,000	4,000,000	1,157,400.00	44¼
5,000,000	5,000,000	1,378,650.00	47¼
6,000,000	6,000,000	1,851,150.00	50¼
7,000,000	7,000,000	2,353,650.00	52½
8,000,000	8,000,000	2,878,650.00	54¾
10,000,000	10,000,000	3,426,150.00	57
		4,566,150.00	57¾

A gift tax return (Form 709) and payment of the tax are due on March 15th following the close of the calendar year in which the taxable gifts are made.

state, the donor will be entitled to a "marital" deduction equal to one-half the value of the gift. This, in effect, reduces the taxable value of the gift by one-half. Gifts of this type in community property states are treated the same way by virtue of the local community property law. In other words, since under the community property law the wife would be considered to own one-half of any community property given to her by her husband, the taxable value of the husband's gift would be only one-half the value of the community property transferred to the wife.

2. *Gifts by husband and wife to third persons:* A husband and wife in a non-community property state are entitled to "split" gifts made by either of them to some third person, if the other spouse consents to such splitting. The effect of this privilege is to treat a gift made by the husband, for example, as though made one-half by him and one-half by his wife. The resulting tax advantage is that the husband and wife have two full sets of gift tax exemptions and exclusions to apply against a gift which is really made by only one of them.

In community property states this consequence follows as a matter of local community property law, with both husband and wife considered the equal donors of any community property given by either one of them to a third person.

Estate Tax

The estate tax is based on the net value of an individual's property which is transferred to others as a result of his death. The calculation of the actual estate tax due is somewhat complicated by the necessity of figuring two separate taxes.

The net tax payable is: (1) the estate tax, consisting of (a) the gross tax computed under Schedule I less (b) the credits allowable against such tax, plus (2) the additional estate tax, consisting of (a) the tentative tax computed under Schedule II less (b) the credits allowable against such tentative tax:

(1) *The estate tax* (1926 Act as amended—specific exemption of \$100,000 in determining net estate).

(a) Schedule I:

	Per cent
First \$50,000 of net estate	1
<i>In excess of</i>	
\$50,000 up to \$100,000	2
100,000 " " 200,000	3
200,000 " " 400,000	4
400,000 " " 600,000	5
600,000 " " 800,000	6
800,000 " " 1,000,000	7
1,000,000 " " 1,500,000	8
1,500,000 " " 2,000,000	9
2,000,000 " " 2,500,000	10
2,500,000 " " 3,000,000	11

<i>In excess of</i>	Per cent
3,000,000 " " 3,500,000	12
3,500,000 " " 4,000,000	13
4,000,000 " " 5,000,000	14
5,000,000 " " 6,000,000	15
6,000,000 " " 7,000,000	16
7,000,000 " " 8,000,000	17
8,000,000 " " 9,000,000	18
9,000,000 " " 10,000,000	19
10,000,000	20

(b) Credits:

(1) The amount of gift taxes paid under the Gift Tax Act of 1932 on gifts by the decedent which must be included in his gross estate, not in excess of the proportion of the gross tax computed under the above schedule which the value of the gift property bears to the value of the gross estate.

(2) The entire amount of gift taxes paid under the Revenue Act of 1924 on gifts by the decedent which must be included in his gross estate.

(3) The amount of succession taxes paid to any state or territory in respect to property included in the gross estate, not exceeding 80 per cent of the tax computed under Schedule I before deducting credits Nos. 1 and 2.

(2) *The additional estate tax* (1932 Act as amended—specific exemption of \$60,000 in determining net estate).

(a) Schedule II:

First \$5,000	Per cent
	3
<i>Net estate</i>	
\$5,000 to \$10,000	\$150 7
10,000 " 20,000	500 11
20,000 " 30,000	1,600 14
30,000 " 40,000	3,000 18
40,000 " 50,000	4,800 22
50,000 " 60,000	7,000 25
60,000 " 100,000	9,500 28
100,000 " 250,000	20,700 30
250,000 " 500,000	65,700 32
500,000 " 750,000	145,700 35
750,000 " 1,000,000	233,200 37
1,000,000 " 1,250,000	325,700 39
1,250,000 " 1,500,000	423,200 42
1,500,000 " 2,000,000	528,200 45
2,000,000 " 2,500,000	753,200 49
2,500,000 " 3,000,000	998,200 53
3,000,000 " 3,500,000	1,263,200 56
3,500,000 " 4,000,000	1,543,200 59
4,000,000 " 5,000,000	1,838,200 63
5,000,000 " 6,000,000	2,468,200 67
6,000,000 " 7,000,000	3,138,200 70
7,000,000 " 8,000,000	3,838,200 73
8,000,000 " 10,000,000	4,568,200 76
10,000,000 " and over	6,088,200 77

(b) Credits:

(1) The gross tax under Schedule I.

(2) The amount of gift taxes paid under the Gift Tax Act of 1932 on gifts by the decedent which must be included in his

gross estate, not credited against the estate tax under Schedule I and not in excess of the proportion of the tentative tax under Schedule II less the gross tax under Schedule I which the value of the gift property bears to the gross estate.

If the gross estate of decedent dying after October 21, 1942, exceeds \$60,000 (insurance included), the legal representative is required to file notice within 2 months after qualification and to file a return within 15 months after decedent's death. Tax is due within 15 months after decedent's death on Form 706. Tax is to be paid by the legal representative out of estate funds. Taxes unpaid after 15 months from the date of death draw interest at 6 per cent per annum, except that where an extension of time for payment is granted, the rate is 4 per cent for a period beginning 18 months after date of death until end of extension period.

Effective with respect to decedents dying on or after January 1, 1948, property left by a husband to his wife, or vice versa, will generally be treated the same for estate tax purposes whether the taxpayer dies in a community property or in a non-community property state.

In non-community property states this result is accomplished by means of a "marital" deduction. Upon the death of husband or wife, the entire value of whatever passes to the surviving spouse outright is deductible from the gross estate subject, however, to the following ceiling—the deduction may not exceed 50 per cent of the gross estate reduced by deductible claims and expenses.

In community property states the same result is obtained by giving effect to the local community property law which usually treats one-half of the community property as already belonging to the wife. Therefore, only one-half of the community property left by the husband to his wife is taxable in his estate.

Excise Taxes

Manufacturers' excise taxes based upon the amount of sales made by a manufacturer are levied at the following rates:

Automobile truck chassis and bodies	8%
Passenger automobile chassis and bodies, including motorcycles	10%
Parts and accessories	8%
Firearms, shells and cartridges	11%
Gasoline, per gallon	\$.02
Tires, per lb.	.05
Inner tubes, per lb.	.09
Lubricating oils, per gallon	.06
Matches:	
fancy wooden, per 1,000	.055
ordinary, per 1,000	.02
Mechanical refrigerators and quick-freeze units	10%
Mechanical and ballpoint pens and pencils, and lighters	15%
Pistols and revolvers	11%

Television and radio receiving sets and parts	10%
Musical instruments, phonographs and records	10%
Sporting goods (other than fishing rods and tackle)	15%
Fishing rods and tackle	10%
Electric, gas, and oil appliances	10%
Cameras, lenses and film	20%
Business and store machines	10%
Electric light bulbs	20%

Retailers' excise taxes based on sales by retailers are levied as follows:

Jewelry	20%
Furs	20%
Toilet preparations (except for babies)	20%
Luggage, etc.	20%
Watches with retail price of \$65 or less	10%
Alarm clocks with retail price of \$5 or less	10%
Diesel fuel for trucks, per gallon	\$.02

Stamp taxes on original issue and transfer of securities are as follows:

Bonds:	
issue, per \$100 face value or fraction	\$.11
transfer, per \$100 face value or fraction	.05

Stocks:	
issue	
par value, per \$100 or fraction	\$.11
no par value, per \$20 of actual value or fraction where less than \$100 per share	.03
no par value, per \$100 of actual value or fraction where more than \$100 per share	.11
transfer	
par value, per \$100 aggregate face value or fraction:	
selling price less than \$20 a share	.05
selling price more than \$20 a share	.06
no par value, per share:	
selling price less than \$20 a share	.05
selling price more than \$20 a share	.06

Admissions and dues are taxed on the basis of the admissions and the dues paid:

Admissions:	
per \$.05 or major fraction	\$.01
charges in excess of estab. price by other than ticket offices, on excess	20%
by proprietors and employees, on excess	50%
lease of boxes or seats, on equivalent box office price	20%
cabarets, roof gardens and similar entertainment	20%
Dues:	
annual dues in excess of \$10	20%
initiation fees over \$10	20%

Excise Taxes—(Cont.)

Telephone, telegraph, radio and cable facilities are taxed on the amount of charge for the services:

Telephone conversations
\$25 and over 25%

A 15% tax is levied upon amount paid by subscribers for local telephone service and for toll charges of less than 25 cents.

Telegraph messages 15%
Radio and cable messages 15%
Leased wire or special services 25%
Intern'l dispatches and messages 10%
Wire and equipment services 8%

Leases of safe deposit boxes are taxed on the basis of the amount paid for use of the box:

On lease price 20%

Tobacco taxes are as follows:

Cigars:
weighing not over 3 lbs. per M .. \$.75
weighing over 3 lbs. per M
if retail price 2½¢ or less 2.50
if retail price over 2½¢ up to 4¢ 3.00
if retail price over 4¢ up to 6¢ 4.00
if retail price over 6¢ up to 8¢ 7.00
if retail price over 8¢ up to 15¢ 10.00
if retail price over 15¢ up to 20¢ 15.00
if retail price over 20¢ 20.00

Cigarettes:
weighing not over 3 lbs. per M .. 4.00
weighing over 3 lbs. per M 8.40

Tobacco and snuff (per pound)10
Cigarette paper:
package, book, or set of more than 25 and less than 50, per package .005
package, book, or set of more than 50, not more than 100, per package .01
package, book or set of more than 100 papers, per 50 papers .005
in tubes, per 50 tubes or fraction .01
Liquor taxes are as follows:
Distilled spirits, per proof gallon ... \$10.50
Imported perfumes containing distilled spirits 10.50
Rectified spirits, additional tax on each proof gallon30
Still wines:
up to 14% alcohol per gallon17
over 14% up to 21% per gallon .. .67
over 21% up to 24% per gallon ... 2.25
over 24% alcohol 10.50

Artificially carbonated wine, per half-pint12
Liqueurs, cordials and similar compounds, per half-pint12
Champagne and sparkling wine, per half-pint17
Fermented liquors, per barrel 9.00

Transportation taxes are levied on fares over 35 cents at the rate of 15%.
Wagers placed with gamblers are taxed at 10%.

1952 State Income Tax Rates

Individuals and Corporations
(As of Sept. 1, 1952)

Individual (by % of income)			Corporate (by % of income)			Individual (by % of income)			Corporate (by % of income)		
ALABAMA						CALIFORNIA					
First	\$1,000	1½	3	First	\$5,000	1	4				
Next	2,000	3		Next	5,000	2					
"	2,000	4½		"	5,000	3					
Over	5,000	5		"	5,000	4					
				"	5,000	5					
				Over	25,000	6					
ARIZONA						COLORADO					
First	\$2,000	1	First	\$1,000	1	5					
Next	1,000	1¼	Next	1,000	2						
"	1,000	1½	"	1,000	2½						
"	1,000	2	"	1,000	3						
"	1,000	2½	"	1,000	3½						
"	1,000	3	"	1,000	4½						
"	1,000	3½	Over	6,000	5						
"	1,000	4									
Over	9,000	4½									
ARKANSAS											
First	\$3,000	1	Same as for indi-			Over	11,000	10			
Next	3,000	2	viduals								
"	5,000	3									
Next	14,000	4									
Over	25,000	5									

(For 1952, the tax reduced by 20%. Residents subject to additional 2% surtax on dividends and interest over \$600.

(For 1952, the tax reduced by 20%. Residents subject to additional 2% surtax on dividends and interest over \$600.

Individual (by % of income)	Corporate (by % of income)		Individual (by % of income)	Corporate (by % of income)	
CONNECTICUT			LOUISIANA		
None	3% (or an alternative tax based on capital, or \$15, whichever greater)		First \$10,000	2	4
			Next 40,000	4	
			Over 50,000	6	
DELAWARE			MARYLAND		
First \$3,000	1	None	2% on first \$500 of investment income and 5% on balance; 2% on other taxable net income.		4
Next \$7,000	2				
Over \$10,000	3				
DISTRICT OF COLUMBIA			MASSACHUSETTS		
First \$5,000	1½	5	2½% on income from employment, professions, trade or business. Varying rates up to 6% on income from other sources. Total tax is increased by temporary surtax of 23% of normal tax.	5½% of net income plus .5% of corporate "excess." Total tax is increased by temporary surtax of 23% of normal tax.	
Next 5,000	2				
" 5,000	2½				
Over 15,000	3				
Tax on unincorporated business, 5%.					
GEORGIA			MINNESOTA		
First \$1,000	1	5½ (or an alternative tax based on income plus compensation, whichever is greater)	First \$5,000	2	6
Next 2,000	2		Next 1,000	2	
" 2,000	3		" 1,000	3	
" 2,000	4		" 1,000	4	
" 3,000	5		" 1,000	5	
" 10,000	6		" 2,000	6	
Over 20,000	7		" 2,000	7	
IDAHO			" 3,500	8	
First \$1,000	1½	Same as for individuals	" 7,500	9	
Next 1,000	3		Over 20,000	10	
" 1,000	4		(Increased by 5% of tax. Additional annual tax of \$5 imposed on each person or corporation required to file return.)		
" 1,000	5				
" 1,000	6				
Over 5,000	8				
INDIANA			MISSISSIPPI		
Generally with some lower rates (down to ½ of 1%) applicable to gross income from certain sources.	1¼%	Same as for individuals	First \$5,000	2	Same as for individuals
			Next 5,000	3	
			" 5,000	4	
			" 10,000	5	
			Over 25,000	6	
IOWA			MISSOURI		
First \$1,000	1	2	First \$1,000	1	2
Next 1,000	2		Next 1,000	1½	
Next 1,000	3		" 1,000	2	
" 1,000	4		" 2,000	2½	
Over 4,000	5		" 2,000	3	
(25% reduction on the tax for 1952)			" 2,000	3½	
			Over 9,000	4	
			(Table takes into account the special credit allowed against the tax.)		
KANSAS			MONTANA		
First \$2,000	1	2	First \$2,000	1	3
Next 1,000	2		Next 2,000	2	
" 2,000	2½		" 2,000	3	
" 2,000	3		Over 6,000	4	
Over 7,000	4				
KENTUCKY					
First \$3,000	2	4½			
Next 1,000	3				
" 1,000	4				
" 3,000	5				
Over 8,000	6				

Individual
(by % of income)

Corporate
(by % of income)

NEW HAMPSHIRE

Tax on income from intangible property at average rate of taxation levied upon other property. (Rate per \$100 for 1951 was \$4.35)

None

None

5

RHODE ISLAND

None

5% (or alternative tax based on corporate "excess," whichever is greater)

NEW MEXICO

First \$10,000 1

Next 10,000 2

" 80,000 3

Over 100,000 4

2

NEW YORK

First \$1,000 2

Next 2,000 3

" 2,000 4

" 2,000 5

" 2,000 6

Over 9,000 7

5½% or an alternative tax based [1] on income plus salary, or [2] on capital, or \$25, whichever is greater; plus a tax on allocated subsidiary capital.

(Capital gains taxed at one-half preceding rates)

Tax on unincorporated business 4%.

Individual tax was reduced by 10% while unincorporated business tax rate was 3%. Any reduction for 1952 would require further legislative action.

NORTH CAROLINA

First \$2,000 3

Next 2,000 4

" 2,000 5

" 4,000 6

Over 10,000 7

6

NORTH DAKOTA

First \$2,000 1

Next 2,000 2

" 1,000 3

" 1,000 5

" 2,000 7½

" 2,000 10

" 5,000 12½

Over 15,000 15

First \$3,000 3

Next 5,000 4

" 7,000 5

Over 15,000 6

OKLAHOMA

First \$1,500 1

Next 1,500 2

" 1,500 3

" 1,500 4

" 1,500 5

Over 7,500 6

4

OREGON

First \$ 500 2

Next 500 3

" 1,000 4

" 1,000 5

" 1,000 6

" 4,000 7

Over 8,000 8

8

Individual
(by % of income)

Corporate
(by % of income)

PENNSYLVANIA

None

None

5

SOUTH CAROLINA

First \$2,000 2

Next 2,000 3

" 2,000 4

Over 6,000 5

4½% (or an alternative native tax based on income plus salary, whichever is greater)

6% on dividends and interest. 4% on dividends from corporations with 75% of their property taxable in Tennessee.

TENNESSEE

6% on dividends and interest. 4% on dividends from corporations with 75% of their property taxable in Tennessee.

3.75

UTAH

First \$1,000 1

Next 1,000 2

" 1,000 3

" 1,000 4

Over 4,000 5

3% (or alternative tax based on tangible property in Utah, or \$10, whichever greater)

VERMONT

First \$1,000 1½

Next 2,000 3

" 2,000 4½

Over 5,000 5½

4

(Increased by 15% of tax for 1952)

VIRGINIA

First \$3,000 2

Next 2,000 3

Over 5,000 5

5

(Tax subject to a credit geared to percentage of excess of state treasury receipts over budget)

WISCONSIN

First \$1,000 1

Next 1,000 1¼

" 1,000 1½

" 1,000 2

" 1,000 2½

" 1,000 3

" 1,000 3½

" 1,000 4

" 1,000 5

" 1,000 5½

" 1,000 6

Over 12,000 7

First \$1,000 2

Next 1,000 2½

" 1,000 3

" 1,000 3½

" 1,000 4

" 1,000 5

Over 6,000 6

Surtax computed by deducting personal exemption and \$37.50 from normal tax and dividing remainder by 6.

Surtax computed by deducting \$75 from normal tax and dividing by 6.

Social Security

The Social Security Act was enacted in 1935 and amended in 1939, 1950 and 1952. Of its 11 programs, 2 are insurance systems financed by payroll taxes: federal old-age and survivors' insurance and federal-state unemployment insurance. The other 9 provide federal grants-in-aid to the states for needy persons who are aged, blind, or permanently disabled—also for dependent children, and for services in behalf of maternal health, child health, crippled children, child welfare, public health and vocational rehabilitation.

The administration of the Act is the responsibility of the Federal Security Administrator. Within the Federal Security Agency, the Social Security Administration, headed by the Commissioner, conducts most of the programs.

Old-Age and Survivors' Insurance

The old-age and survivors' insurance program began in 1937, although only old-age lump-sum benefits were paid before 1940. It is the only wholly federal program.

Benefits

Benefits available to workers who are "fully insured" under the system are:

1. A monthly retirement benefit for a worker 65 or over.
2. A supplemental monthly benefit for a retired worker's wife, if she is 65 or over, or at any age if she has dependent children under 18 in her care; and for his children if under 18.
3. Monthly benefits to the following survivors of a deceased worker, regardless of his age at death: (a) Widow, if 65 or over; (b) Widow or divorced wife at any age if

she has dependent children in her care; (c) Children, unmarried and under 18; (d) Parents, if 65 or over and dependent on the deceased, but only if the worker has no widow or child entitled to benefits.

4. A lump-sum benefit, which is paid the widow or widower, if he or she was living with the deceased at the time of death. If there is no such person, the persons paying the worker's burial expenses may be reimbursed for expenses paid. Lump-sum benefits can be paid under the above circumstances even if the worker was drawing old-age benefits before his death and his wife or child were also receiving benefits on his wages. Furthermore, the lump sum is not in place of monthly benefits payable later to survivors and does not affect their rights to monthly benefits.

Workers who are not "fully" insured but are merely "currently" insured are entitled only to those benefits for survivors listed under 3 (b), 3 (c), and 4 above.

Dependent husbands of working wives may receive a supplemental retirement benefit or a widower's benefit after 65, but only if the wife was both currently and fully insured. Children of working mothers may draw benefits, even if the father is present in the household, when the mother was currently and fully insured.

A worker is "fully" insured if he has been paid \$50 in taxable employment in each of 40 quarters, or if he has worked in taxable jobs half the quarters after 1950 (or after becoming 21, if later) and before he reaches 65 or dies (at least 6 quarters are needed). (See Table 1A.)

A worker is "currently" insured if he has received wages of at least \$50 in taxable

TABLE NO. 1: Examples of Current Life-Insurance and Retirement Benefits
(Assuming 10 years' coverage)

Type of benefit	Average monthly wage					
	\$50	\$100	\$150	\$200	\$250	\$300
RETIREMENT BENEFITS:						
Retired worker:						
Covered before 1950.....	\$ 45.30	\$ 57.20	\$ 64.40	\$ 70.50	\$ 76.10	\$ 76.10
Covered after 1950.....	27.50	55.00	62.50	70.00	77.50	85.00
Wife or dependent husband:						
Covered before 1950.....	20.30*	28.70	32.20	35.30	38.10	38.10
Covered after 1950.....	13.80	25.00*	31.30	35.00	38.80	42.50
LIFE-INSURANCE BENEFITS:						
Widow and 1 child:						
Covered before 1950.....	65.60*	85.80	96.60	105.80	114.20	114.20
Covered after 1950.....	41.40	80.00*	93.80	105.00	116.40	127.60
Widow and 2 children:						
Covered before 1950.....	65.60*	91.60*	128.90	143.10	152.30	152.30
Covered after 1950.....	45.20*	80.10*	120.20*	140.10	155.20	168.90*
Burial payment:						
Covered before 1950.....	135.90	171.60	193.20	211.50	228.30	228.30
Covered after 1950.....	82.50	165.00	187.50	210.00	232.50	255.00

* Reduced by ceiling.

TABLE NO. 1A
Quarters of Coverage Needed to Receive Retirement Benefits

Time of 65th birthday	Quar- ters*	Time of 65th birthday	Quar- ters*	Time of 65th birthday	Quar- ters*	Time of 65th birthday	Quar- ters*
1954 Jan.-June.....	6	1958 July-Dec.....	15	1963 Jan.-June.....	24	1967 July-Dec.....	33
July-Dec.....	7	1959 Jan.-June.....	16	July-Dec.....	25	1968 Jan.-June.....	34
1955 Jan.-June.....	8	July-Dec.....	17	1964 Jan.-June.....	26	July-Dec.....	35
July-Dec.....	9	1960 Jan.-June.....	18	July-Dec.....	27	1969 Jan.-June.....	36
1956 Jan.-June.....	10	July-Dec.....	19	1965 Jan.-June.....	28	July-Dec.....	37
July-Dec.....	11	1961 Jan.-June.....	20	July-Dec.....	29	1970 Jan.-June.....	38
1957 Jan.-June.....	12	July-Dec.....	21	1966 Jan.-June.....	30	July-Dec.....	39
July-Dec.....	13	1962 Jan.-June.....	22	July-Dec.....	31	1971 on.....	40
1958 Jan.-June.....	14	July-Dec.....	23	1967 Jan.-June.....	32		

* With wages of \$50, or, after 1950, \$100 in self-employment income.

employment in at least 6 of the 13 calendar quarters preceding and including the quarter in which he died.

The worker's primary benefit—the amount paid to him monthly when he reaches 65, and the basis for any other benefits payable on his wages—may be figured under either the old formula or the new formula. The old formula determines benefits of workers who do not have 1½ years of covered employment after 1950. Those who have the required post-1950 coverage receive benefits computed under the formula that gives the larger benefit. If a claimant reached age 22 after 1950, however, his benefits are determined by the new formula.

Since time elapsed is a factor in both formulas (from 1936 in the old, from 1950 in the new), a person who has worked continually in covered employment will receive a larger benefit than one who has worked part of the time in exempt employment or has been unemployed.

Workers who do not have 6 quarters with wages of \$50 after 1950:

(1.) Figure the worker's "average monthly wage" by dividing his total taxable wages by the number of months elapsed since January 1, 1937.

(2.) Take 40% of the first \$50 of the average monthly wage and add to it 10% of the remainder (not exceeding \$250, however). Then add to this sum 1% for each year before 1951 in which the worker received at least \$200 in covered employment. If the resulting sum is less than \$10, it is increased to \$10.

(3.) Use the conversion table (Table 1B) to increase the monthly benefit.

Example: A worker was paid \$3,100 a year for the years 1937 through 1950. He retires at the end of 1950 and becomes 65 in July, 1951. His monthly retirement benefit is computed as follows:

(a) His average monthly wage is \$249.42 (total wages, \$43,400, divided by the number of months between 1937 and July 1951, or 174).

(b) His benefit under the old law is \$45.53; i.e., \$20.00 (40% of \$50) plus \$19.94 (10% of \$199.42) plus \$5.59 (1% times \$39.94 times 14 years).

(c) His benefit after Aug. 1952 (see Table 1B) is \$77.10.

Workers who have 6 quarters with wages of \$50 after 1950:

The benefit is figured under the formula that gives the larger amount—either:

TABLE NO. 1B
Conversion Table Increasing Monthly Benefits

Benefit before Sept., 1950	Benefit starting Sept., 1952	Benefit before Sept., 1950	Benefit starting Sept., 1952	Benefit before Sept., 1950	Benefit starting Sept., 1952	Benefit before Sept., 1950	Benefit starting Sept., 1952
\$10	\$25.00	20	\$42.00	\$30	\$60.80	\$40	\$72.00
11	27.00	21	43.50	31	62.00	41	73.10
12	29.00	22	45.30	32	63.30	42	74.10
13	31.00	23	47.50	33	64.40	43	75.10
14	33.00	24	50.10	34	65.50	44	76.10
15	35.00	25	52.40	35	66.60	45	77.10
16	36.70	26	54.40	36	67.80	46	77.10
17	38.20	27	56.30	37	68.90		
18	39.50	28	58.00	38	70.00		
19	40.70	29	59.40	39	71.00		

(1.) Computed under the old law and raised by the conversion table; or

(2.) Computed by the new formula, with the average wage figured on a "new start" basis as follows:

"Average monthly wage" is computed by dividing the worker's total taxable wages, beginning with 1951 and ending with the third quarter preceding that in which he is 65, by the number of months in this period (raised to 18 if less than that).

(a) If the average monthly wage is \$48 or more, take 55% of the first \$100;

(b) Add 15% of the next \$200. The result is the worker's monthly benefit.

Example: A worker was paid \$3,000 a year for the years 1937 through 1954. He retires at the end of 1954 and is 65 in August, 1955. His monthly retirement benefit is figured under whichever formula will give him the larger benefit.

(1.) Under the old law and the conversion table, the monthly benefit is \$77.10.

(2.) His benefit under the "new start" formula is \$77.50, computed as follows: His total wages for 1951 through 1954 (\$12,000) are divided by the number of months in the period Jan. 1, 1951-Dec. 31, 1954. This gives an "average monthly wage" of \$250. His monthly benefit is figured by taking 55% of \$100 (\$55) and adding 15% of \$150 (\$22.50), resulting in \$77.50.

Since the benefit under the "new start" formula is larger than under the conversion table, the "new start" formula is used.

If an employee's "average monthly wage" under the "new start" formula is \$34 or less, his monthly benefit is \$25; the benefit for wages of \$35 through \$47 is \$26.

A benefit claim may be recomputed later to include subsequent earnings.

The amounts of other benefits are derived from the primary benefit as follows:

Child: retirement benefit of one-half the primary benefit; survivors' benefit of three-fourths the primary benefit (if only 1 child); if several children, each gets one-half, with an additional one-fourth divided among them.

Husband or wife: one-half primary benefit.

Widower or widow: three-fourths primary benefit.

Parent: three-fourths primary benefit.

Lump-sum benefit: 3 times the primary benefit. (If paid to persons paying burial expenses, other than the widow or widower, the benefit is limited to expenses incurred.)

Maximum benefit which may be paid on any one worker's wages is the lesser of: \$168.75, or 80% of the worker's average monthly wage. If benefits are already \$45 or less, they will not be further reduced.

A person earning more than \$75 a month in covered employment, or \$900 a year in self-employment, is not eligible for retirement or dependents' benefits in that month. Pensioners 75 or over, however, are not subject to this earnings limit.

Application for benefits is made to the nearest field office of the Social Security Administration.

Rates and Coverage

All employers covered by the federal insurance contributions law are required to pay a 1½% tax on wages paid to employees, and each employee also pays a 1½% tax on his pay. The rate was raised to 1½% from the original rate of 1% on January 1, 1950. The law calls for another increase in tax to 2% in 1954 and by gradual steps to 3¼% in 1970.

Neither employer nor employee is required to pay tax on that part of a worker's pay which is over \$3,600 in any calendar year. If an employee does so because he worked for more than one employer, he may apply for a refund or income-tax credit of tax over \$54 at the end of the year. (Before 1951, this maximum was \$3,000.)

Although these taxes are initially paid into the Treasury, a corresponding amount is appropriated yearly from the Treasury into the Old-Age and Survivors' Insurance Trust Fund, from which benefits are paid.

An employer is liable for payment and deduction of tax if he has one employee. The length of employment and the number of employees are immaterial.

The following workers are exempt; and no tax is incurred on their wages: self-employed with income under \$400 a year; irregular agricultural labor; irregular domestics; casual labor not in the course of the employer's business; persons working for a son, daughter or spouse, or for a parent if the child is under 21; international organizations, including U. N., etc.; employees of nonprofit religious, charitable or educational organizations, unless coverage is elected voluntarily; railroad workers; certain employees of organizations exempt from income tax; student nurses and interns; workers on small fishing vessels; newsboys under 18; certain newspaper and magazine vendors; students employed by their schools.

Amendments to the law in August, 1950, covered for the first time regularly employed farm workers and domestic servants and self-employed business men (except farmers and some professionals). The tax rate for self-employed persons is 2¼%. They pay the tax annually along with their income tax.

Veterans of World War II, who would not otherwise have received wage credits for their time in the service, were in 1943

voted special coverage in the event of death within 3 years after discharge. In such cases they are considered to have died fully insured, to have an average monthly wage of at least \$160, and to have had \$200 annual wages for each year of at least 30 days' active service.

Also, for every month a veteran was in active service between Sept. 16, 1940, and January 1, 1954, he will automatically be given credit for \$160 in wages. This will help him to qualify for benefits and will go towards the average wage figure on which benefits are based.

Board Wage Records

Every employee must have a social security number. An account with the Social Security Administration is set up for each worker, and to this account are credited all wage payments reported. When a benefit claim is filed, these accounts are used to determine if the claimant is eligible for benefits and, if he is, the amount of the benefit to be paid.

Unemployment Compensation

Federal and state governments co-operate in the administration of the unemployment insurance program. The federal law, beginning with 1936, imposed an excise tax on employment and established the framework for the federal-state system. All states (including District of Columbia, Hawaii and Alaska) followed suit, most of them in 1936 and 1937. Benefits became payable in most states in 1938 and 1939. (Wisconsin was the only state to pass such a law earlier—taxes were first collected in July, 1934.)

Benefits

The state laws determine who shall receive unemployment benefits, in what amount, and under what conditions. The provisions vary in each state, but generally a person is entitled to benefits for any week during which he is totally or partially unemployed, provided he has earned a sufficient amount of wages from an employer subject to the state law, has filed a claim for benefits, has served a "waiting period" of a week (not required in some states), and is not disqualified.

Disqualification means that the payment of benefits is postponed for a certain number of weeks, or is suspended entirely, because the worker is in one of the following situations:

1. Not able to work—ill, aged or disabled to the point that he cannot perform any marketable services.

2. Not available for work—not willing to do work for which he is fitted by experience, education or training, or places unreasonable restrictions on hours, wages, shift or skill he will accept, with the result that he is not likely to find the job he wants.

TABLE NO. 2

Old Age and Survivors' Insurance (in millions of dollars)

Year	Wage taxes collected	Interest received	Trust fund at end of year	Benefits paid*
1937.....	\$ 493	\$ 2.3	\$ 766	\$ 1.3
1938.....	474	15.4	1,132	10.5
1939.....	568	27.0	1,724	13.9
1940.....	637	42.9	2,031	40.6
1941.....	789	56.2	2,762	93.9
1942.....	1,012	72.3	3,688	137.0
1943.....	1,239	88.3	4,820	172.9
1944.....	1,316	106.7	6,005	218.0
1945.....	1,285	134.3	7,121	273.9
1946.....	1,295	151.6	8,150	378.1
1947.....	1,557	164.2	9,360	466.2
1948.....	1,685	281.2	10,722	556.2
1949.....	1,666	145.7	11,816	667.0
1950.....	2,667	257.0	13,721	961.1
1951.....	3,363	417.3	15,539	1,885.2

* Only lump-sum payments were made until 1940.

3. Quit work—left his job voluntarily without good cause. "Good cause" is some sound reason which would impel an ordinarily prudent person to quit, such as an unreasonable increase of hours without a pay increase, a substantial reduction in wages, requirement of excessive unpaid overtime, a transfer to work which injures the person's health, an unreasonably heavy work quota, unjustified reprimands or abuse from superior, etc.

4. Discharged for misconduct—discharged because of conduct detrimental to his employer's interests—for example, refusal to obey orders, absence from work, tardiness, violation of employer's rules, intoxication at work, etc.

5. Refused job offer of suitable work without good cause—refused a job which is reasonably fitted to his training, experience, or skills, pays the prevailing wages for similar work, is not detrimental to his health or safety, has working conditions which are not substantially less favorable than those prevailing in similar work in the locality, and is within a reasonable distance from his home. If the job offer is suitable, the person is expected to accept it unless he has good cause for refusing, such as reasonably good prospects of employment elsewhere, unreasonable conditions required by employer, etc.

6. Involved in labor dispute. Even if the worker is not striking, he may be disqualified if he is a member of the union involved; or his wages, hours or working conditions will be affected by the outcome of the strike; or he serves on or refuses to cross picket lines; or engages in a sympathy strike. Benefits cannot be paid as long as the dispute persists, except in New York (7 weeks disqualification) and Rhode Island (8 weeks).

TABLE NO. 3: State Unemployment Compensation Maximums

(corrected to October 20, 1952)

State	Weekly benefit	Duration (in weeks)	State	Weekly benefit	Duration (in weeks)
Alabama.....	\$22	20	Montana.....	\$20	18
Alaska.....	30	25*	Nebraska.....	24	20
Arizona.....	20	20*	Nevada.....	25	26*
Arkansas.....	22	16	New Hampshire.....	28	26
California.....	25	26	New Jersey.....	30	26
Colorado.....	22.75	20	New Mexico.....	25	24
Connecticut.....	24	26*	New York.....	30	26
Delaware.....	25	26	North Carolina.....	30	26
D. C.....	20	20*	North Dakota.....	25	20*
Florida.....	20	16	Ohio.....	28	26*
Georgia.....	20	20	Oklahoma.....	22	22
Hawaii.....	25	20	Oregon.....	25	26
Idaho.....	25	26	Pennsylvania.....	30	26
Illinois.....	27	26	Rhode Island.....	25	26
Indiana.....	27	20	South Carolina.....	20	18
Iowa.....	26	20	South Dakota.....	22	20
Kansas.....	28	20	Tennessee.....	22	22
Kentucky.....	28	26	Texas.....	20	24
Louisiana.....	25	20	Utah.....	27	26
Maine.....	25	20	Vermont.....	25	20
Maryland.....	25	26*	Virginia.....	22	16
Massachusetts.....	25	23*	Washington.....	30	26
Michigan.....	27	20*	West Virginia.....	25	23
Minnesota.....	25	25	Wisconsin.....	30	26½
Mississippi.....	30	16	Wyoming.....	25	20*
Missouri.....	25	24			

* This amount will be increased for unemployed persons with dependents.

Some state laws also disqualify workers who leave because of marriage, marital duties, pregnancy, to attend school, or who receive dismissal pay, vacation pay, workmen's compensation payments, or veterans' readjustment allowances.

A worker seeking unemployment benefits must file a claim at the local office of the state unemployment bureau and register for work with the employment service. At that time, a benefit year (usually the year running from the date of his claim) and a base period (usually the year ending from 3 to 6 months before the filing of his claim) are established for him. His benefit amount will be a percentage of the wages earned in his base period, but no more than the maximum amount allowed. He is entitled to draw benefits for the set number of weeks during the rest of that benefit year. When he has exhausted these benefits he will not be eligible again until he can establish a new benefit year for which he has the necessary base period wages.

An employee moving out of the state does not lose benefit rights earned under that state law. He merely files a claim for benefits at the local office in the state where he is now located, which acts as agent for the other state in paying benefits.

Tax

An employer is generally liable for a maximum total tax of 3% of his pay roll—0.3% to the federal government and

2.7%, or less, to the state. Although the federal government itself technically levies a pay-roll tax of 3%, in practice this usually amounts to only 0.3% because the employer is allowed a credit of as much as 2.7% for taxes paid to the states. From this federal tax, funds are appropriated each year to the states to cover administrative costs. Taxes collected by the states are used solely for benefit payments.

Under the federal law, which is merely a taxing statute, the Treasury Department collects the tax, which is paid annually. The state laws, under which benefits are paid, are administered by the various state unemployment insurance agencies.

Only two states require contributions from employees in addition to those from employers: Ala.—the rate varies from 0.1% to 1.0% depending on the rate of the employer; N. J.—¼ %.

Merit Rating

All states collect unemployment taxes under "merit rating" systems. These systems allow tax rates lower than the usual standard rate of 2.7% to those employers who have some success in stabilizing employment, provided they have paid the tax for 3 or 4 years. In most states low rates go to employers who have fewest ex-employees drawing unemployment benefits; in others, those employers benefit who have little or no decrease in pay roll.

The average tax rate in merit rating states in 1951 was 1.6%.

TABLE NO. 4

Total Unemployment Compensation Benefits Under State Laws

Source: Social Security Administration.

Year	Total benefits (in thousands)	Average number of beneficiaries per week
1940.....	\$ 518,700.4	982,392
1941.....	344,320.7	621,065
1942.....	344,084.1	541,495
1943.....	79,643.1	115,454
1944.....	62,384.6	79,306
1945.....	445,865.8	466,550
1946.....	1,095,475.2	1,150,217
1947.....	775,146.0	852,392
1948.....	789,925.0	826,481
1949.....	1,737,279.0	1,889,000
1950.....	1,373,426.0	1,323,500
1951.....	840,411.0	796,925

Coverage

Employers are liable for the federal tax if they have eight or more employees on some day in each of 20 weeks in a year.

State requirements for liability vary, ranging from eight employees in the state down to a single employee. An employer who has employees in several states may be subject to as many state laws.

Liability for both federal and state taxes is limited to the first \$3,000 of a worker's pay in a year.

Certain employees are exempt from tax

under federal and most state laws and are not counted in determining whether an employer is subject to tax. These are self-employed, agricultural workers, domestic workers, members of a proprietor's immediate family, railroad workers, government employees, employees of nonprofit educational, charitable or religious organizations, insurance agents, newsboys under 18, student nurses and interns, and casual labor not in the course of an employer's business. Although maritime workers had previously been exempt under the federal law and in some states, the federal law was amended to include them as of July 1, 1946, and coverage has been extended in most states.

Public Assistance

Under the Social Security Act, federal grants are made to the states for public assistance to needy persons, provided the state plan for distribution of the aid has been approved by the federal government. All states and territories co-operate in old-age assistance plans: all but Alaska co-operate in plans for the needy blind; all but Nevada share in plans for needy children; all states and Puerto Rico have approved plans for maternal and child-health services, services for crippled children, and child-welfare services. Beginning January, 1947, grants for maternal and child-health services may be made to the Virgin Islands. The 1950 amendments authorized plans for the permanently disabled in need, and for direct medical care to those receiving assistance payments.

TABLE NO. 5: Public Assistance Payments
(in thousands)

Source: Social Security Administration.

Year	Total	Special types of assistance payments				General assistance
		Old-age assistance	Aid to dependent children	Aid to the blind	Aid to permanently and totally disabled	
1933.....	\$1,223,779	\$26,071	\$40,504	\$5,839	.....	\$758,752
1934.....	2,380,865	32,244	40,686	7,073	.....	1,200,360
1935.....	2,532,467	64,966	41,727	7,970	.....	1,433,180
1936.....	3,119,013	155,241	49,462	12,813	.....	439,004
1937.....	2,653,918	310,441	71,253	16,171	.....	406,881
1938.....	3,236,600	392,386	97,447	19,154	.....	476,201
1939.....	3,185,447	430,666	114,954	20,437	.....	481,723
1940.....	2,723,408	472,791	132,925	22,703	.....	394,398
1941.....	2,227,527	540,446	153,028	22,785	.....	273,007
1942.....	1,546,241	601,400	158,032	24,495	.....	180,471
1943.....	930,234	653,171	140,942	25,143	.....	110,978
1944.....	942,457	693,338	135,015	25,342	.....	88,762
1945.....	989,686	726,550	149,667	26,557	.....	86,912
1946.....	1,182,587	822,061	208,857	30,748	.....	120,920
1947.....	1,480,774	986,470	294,038	36,198	.....	164,068
1948.....	1,730,505	1,128,190	362,795	41,288	.....	198,232
1949.....	2,174,989	1,372,913	472,371	48,448	.....	281,257
1950.....	2,456,524*	1,485,483	556,420	53,405	8,178	353,039
1951.....	2,382,328*	1,469,253	559,111	55,673	57,757	240,534

* Includes vendor payments—that is, payments to others on behalf of these groups for medical and remedial care.

The federal contribution to the States for assistance to the needy aged and blind now are: \$20 of the first \$25 and 50% of any amount between \$25 and \$55. (The blind are allowed to earn up to \$50 a month and still draw their full assistance payment.) Federal contribution for a dependent child and to the relative with whom the child is living is \$12 of the first \$15, plus one-half of the remainder up to \$30 for the relative and first dependent child in a family. Only those children are eligible who are under 16 (or under 18 and still at school) and who have been deprived of parental support or care and are living with a member of the family.

Social Security for Railroad Workers

Social security for most workers in the railroad transportation industry is provided under a national system apart from that established by the Social Security Act. The Railroad Retirement Act was first passed in 1934, but was held unconstitutional by the Supreme Court. The present Act was passed in 1935 and was substantially amended in 1937 and again in 1946. It is administered by the Railroad Retirement Board.

Taxes supporting the system are collected under the Carriers Taxing Act by the Bureau of Internal Revenue. Taxes are levied on the first \$300 of monthly compensation, on both employers and employees at these rates: 1937-39: 2¾%; 1940-42: 3%; 1943-45: 3¼%; 1946: 3½%; 1947-48: 5¼%; 1949-51: 6%; 1952 on: 6¼%.

Benefits provided are: retirement benefits at 65 or over, and, under certain circumstances, 60; dependents' and survivors' benefits; disability benefits.

Under the Railroad Insurance Act, also administered by the Railroad Retirement Board, railroad workers receive unemployment insurance, and since July 1, 1947, sickness compensation and maternity benefits. Costs are paid by employers at a rate of ½% of pay roll up to \$300 a month per worker. Rates may increase in ½% gradations to 3% according to a scale of rates set by the size of the benefit fund. Taxes are collected by the Board.

Draft and UMT

Under pressure of the general deterioration of world relations, Congress has started a build-up toward a 10-million-man armed force. The plan is to have a liberal draft and a large Reserve. As Congress sees the future picture, there will be 3½ to 4 million men on active duty, 1½ million in a Ready Reserve, the rest in a Standby Reserve. Congress has also technically approved the principle of Universal Military Training—but has so far failed to put it into effect. As a result, this system will operate in this way: men between

Federal Civil Service

The civil-service retirement system, first established in 1920, now provides a retirement system for almost all federal employees not under another plan. It provides for a retirement benefit at 70, or at 62 or 60 or 55, depending on the number of years' service; a disability retirement benefit; a deferred annuity for separated employees with 5 years' or more service when they reach the age of 55 or 62; refunds if service is less than 5 years; death benefit to a wife or dependent child in the amount of the worker's credit in the fund.

In order to finance increased benefit amounts, employees' contributions were raised from 5% to 6%, starting July 1, 1948. The Government's share in the cost of the program also rose from 5% to 6½%.

Health Insurance

For the most part health insurance is maintained on a voluntary basis by group or individual insurance purchased from private insurance companies or from non-profit organizations. There are, however, these statutory programs:

1. Workmen's compensation laws in every state require employers to insure certain employees for disability incurred in the course of employment.

2. Sickness compensation laws in California, New Jersey, New York and Rhode Island provide for a cash benefit to partially replace wages lost through nonoccupational illness or injury.

3. Almost 5 million civilian employees are paid disability benefits under special public retirement systems.

4. Cash sickness and maternity benefits are paid to railroad workers under the railroad insurance system.

Voluntary insurance is popular in fields of hospitalization costs, accident insurance, medical and surgical care, and pay for time lost from work through sickness.

The largest of the nonprofit plans is the Blue Cross, whose 90 hospital-service plans have over 42,000,000 subscribers throughout the country.

18 and 26 are subject to draft call but with liberal deferment policies. After serving up to 2 years on active duty, they will go into the Ready Reserve for another period of 3 to 5 years. While in the Ready Reserve, they are subject to call by the President on a 30-day notice, provided Congress approves the President's action. After serving this period, they go into the Standby Reserve until they have completed 8 years in the military forces. Men in the Standby Reserve can be recalled to duty only by Congress and only in case of

a new world war or similar large-scale hostilities.

Who Must Serve

Men between the ages of 18 and 26 must register under the draft law; men 18½ through 25 are liable for military service. Liability for service lasts until age 35 for any person deferred from service for any reason. When called, service on active military duty for periods up to 24 months may be required, with an additional 6 years spent in the reserves.

The only exemptions from military service are for veterans, members of organized reserve units while they remain in those units, ministers and divinity students, aliens not admitted for permanent residence. Conscientious objectors will be assigned to noncombatant duty or to essential civilian work for 24 months. A sole surviving son in a family which lost a child or children in the Armed Forces may also be exempt.

Deferments

Men may be deferred from active service for limited or indefinite periods at their request. Deferment may be on the basis of dependency; essentiality of civilian work; training under an approved apprentice training program; service in the ROTC or National Guard; attendance at high school or college. Granting or extension of deferment is in the discretion of the local draft board. Its decision may be appealed to the appeal board and then to the President. Request for deferment may be made by the draft registrant, his employer or his dependent.

Volunteers

Men between the ages of 18½ and 26 may voluntarily enlist in the army for 24 months (instead of the usual 48), but this applies only to the Army. Men are permitted to enlist in the service of their choice up to the time they receive notice to report for induction.

Doctors, Dentists

Special draft rules apply to doctors, dentists, veterinarians, optometrists, pharmacists and osteopaths. They are liable for induction up to age 51 for service up to 24 months.

UMT

A system of Universal Military Training has been set up under the draft law. However, it will not go into operation until special legislation is passed by Congress. The National Security Training Commission has recommended this program to Congress: (a) a 6-month period of continuous training for each 18-year-old, consisting of basic training and technical instruction; (b) each service to conduct its own UMT program and trainees to have a

choice within established quotas; (c) military training only to be given; (d) training compulsory for all 18-year-olds except those not physically or mentally acceptable by the military; (e) deferments for high-school students as under the draft law, college students being deferred until the end of their current academic year; (f) the same rules for conscientious objectors as under the draft law.

UMT bills along these lines were submitted to both House and Senate in the 82nd Congress, but no action was taken.

Reservists

The draft law gives the President authority to recall to active duty members of the reserves and retired members of the armed forces. This authority continues in effect until July 1, 1953. Reservists are called to duty individually on the basis of the need of the service for their skills. Large numbers of reservists were recalled after the outbreak of the Korean fighting. Once called, they must serve up to 24 months. However, this period may be shorter or longer depending on how critically the reservists' skill is needed by the service.

Reservists may receive deferment on their recall orders on the basis of essentiality of their civilian jobs, as students, or because of severe personal hardship in responding to the call. Whether or not request for deferment is granted depends on the discretion of the service involved.

The services have set up programs under which they will release reservists called to duty after Korea. In addition, the draft law requires release of inactive or volunteer reservists who were called up involuntarily. They must be released after serving 17 months on active duty since June 25, 1950, provided they had 12 months or more of service between 12/7/41 and 9/2/45. Exceptions are reservists with a critical rating who may be retained as long as needed.

The Armed Force Reserve Act of 1952 reorganized the reservist set-up. Its object was to eliminate as far as possible the injustices which resulted when the Korean fighting broke out and large number of reservists were recalled to duty on very short notice. Under the new plan, World War II Army and Air Force officers must sign new indefinite-term commissions in order to remain in the reserves. Those who fail to do so will be dropped. Naval and Marine officers already have indefinite-term commissions in the reserve, except where the services will accept individual resignations. World War II enlisted men have no future obligation to serve unless they volunteer for the reserves. All these World War II veterans who are in the active reserves will now be put into the Ready Reserve. National Guard units are

also part of the Ready Reserve but they are retained as a separate force. Eventually they will go into the Standby Reserve. The Standby Reserve will be composed of all reservists that have been placed on the inactive status list.

Veterans' Benefits

Job Reinstatement

Veterans are entitled to be reinstated in the jobs they held when they went into service, provided they comply with conditions specified in the law. Re-employment rights apply to draftees, enlistees, and reservists, whether serving voluntarily or involuntarily. Veterans who qualify are entitled to their old job or one of similar seniority, status and pay. They are guaranteed against discharge, except for cause, for one year after reinstatement.

To qualify, the veteran must have left other than a temporary job to perform military service. He must be separated with a certificate of satisfactory service and apply for reinstatement within 90 days of his release. Persons who went into service before June 24, 1948, are not entitled to reinstatement if they are disabled, but those going into service after that date must be re-employed in jobs they can do even if disabled. Veterans who go into service after June 24, 1948, are not entitled to re-employment if their term of service exceeds 4 years. There is no restriction on length of service of veterans inducted before June 24, 1948.

Veterans who qualify must be reinstated unless the employer can prove that his circumstances have changed so as to make it impossible or unreasonable to re-employ the veteran.

Beginning June 19, 1961, employees who are called up for induction or for training duty only must be given a leave of absence. After either rejection or release from training, they must be re-employed, provided they apply within 30 days of release. However, they are not entitled to the one-year guaranty of employment which applies to veterans.

Vocational Rehabilitation

Vocational rehabilitation courses not exceeding 4 years and placement in suitable, gainful employment are available for any veteran who served on or after September 16, 1940, and on or before July 25, 1947, and was honorably discharged with a service-connected disability which can be overcome by training. The benefits are also available to veterans disabled while on active duty on or after June 27, 1950, if their disability is one for which compensation is paid at full wartime rates. Veterans may begin training at any time after discharge. However, World War II veterans

Draft law is scheduled to end July 1, 1955. However, this doesn't affect the continued liability for draft of any men who were deferred. They continue to be subject to draft call until they reach 35. When drafting ends, UMT is to start.

must wind up training by July 25, 1956. Veterans disabled after June 27, 1950, have 9 years from the end of the current emergency (date not yet set) in which to wind up training.

The Veterans Administration arranges for the training, pays for tuition and supplies. While in training and for two months after rehabilitation, the veteran may receive subsistence allowances in addition to his disability compensation. Rates are \$75 a month (if no dependents), \$105 (if one dependent), and \$120 (if more than one) for veterans studying full time in school or college. Job trainees may collect \$65 a month (if no dependents) or \$90 (if one or more dependents). Additional allowances may be paid depending on the degree of disability and the number of additional dependents.

Disability Pensions

Veterans with a World War II service-connected disability are eligible for disability compensation. This is true also for veterans with service-connected disability which occurred on or after June 27, 1950. Discharge must be under conditions other than dishonorable. Monthly rates range from \$15 to \$150 depending on disability, plus awards up to \$360 for amputation, etc. Veterans with 50% or more disability are eligible also for allowances for dependents.

Veterans permanently and totally disabled for reasons not traceable to military service are entitled to disability pensions. This applies to World War II veterans and to persons who went into service after June 27, 1950. The pension rates are \$60 a month, increased to \$72 after 10 years or when the veteran reaches age 65. Single veterans are ineligible if income exceeds \$1,000 a year; veterans with a wife or minor child are ineligible if income exceeds \$2,500 a year.

Veterans Preference

Veterans who have been separated from the service under honorable conditions must be given preference in certification for appointment, in appointment, in reinstatement, in re-employment and in retention in federal civil service positions. Specifically with respect to the positions of clerk or bailiff in federal courts, the Court Clerk or Bailiff Preference Act grants preference in appointment to veterans.

Insurance

Persons in active service on or after June 27, 1950, are automatically covered by free government insurance for \$10,000. If they remain in service for more than 30 days, the protection continues for 120 days after separation. During this 120-day period, they can apply for government term insurance up to \$10,000. This insurance cannot be converted into permanent insurance but can be renewed as term insurance. It is issued without medical examination.

Servicemen who hold insurance issued under the World War I or II government insurance programs may apply for waiver of the premiums while they are in service. The waiver applies for 120 days after separation. The insurance can be reinstated on compliance with the law's conditions.

Policies issued under World War I or II government insurance programs will continue in effect. But no new insurance will be issued under these programs except to disabled servicemen ineligible for commercial insurance.

Education

Education and training allowances are available to post-Korean veterans provided (a) they served on active duty after June 27, 1950; (b) they had at least 90 days total service or were discharged for disability if service was less than 90 days; (c) they were discharged for conditions other than dishonorable. Veterans are entitled to 1½ days training for each day in service after June 27, 1950—up to a maximum of 36 months. Training will be taken in colleges and schools, on-the-job or on-the-farm, but the school or establishment must be approved by the Veterans Administration. Allowances are paid directly to the veteran covering both tuition and living costs. For full-time attendance at school or college the veteran may collect \$110 a month (no dependents), \$135 (one dependent) or \$160 (more than 1 dependent). For on-the-job training, payments are \$70, \$85 or \$105 a month respectively. Trainees can earn up to \$310 a month, but if earnings plus the training allowance exceed \$310, the training allowance is reduced accordingly. Proportionate payments are made to veterans on-farm training, part-time courses, etc.

Education payments started Aug. 20, 1952, and payments will end 7 years after the veteran's discharge or 7 years after the end of the current emergency period, whichever is later.

Some World War II veterans are still entitled to education benefits provided they started their training by July 25, 1951. Benefits are also available to World War II veterans who enlisted or re-enlisted between Oct. 6, 1945, and Oct. 5, 1946. They must start training within 4 years after the end of their enlistment period.

Loans to Veterans

Both World War II and post-Korean veterans are eligible for GI loans. Three types are available: (1) for purchase or construction of homes; (2) for purchase of farms and farm equipment; (3) for purchase of business and business property.

In all three types, eligibility requirements are that the veteran must have entered the armed service on or after September 16, 1940 and before July 25, 1947; or, in the case of post-Korean veterans, he must have entered the armed services after June 27, 1950. He must have an honorable discharge after service of at least 90 days or a service-connected disability as reason for the discharge or release; application must be made by July 25, 1957, in the case of World War II veterans, or within 10 years after the end of the current emergency in the case of post-Korean veterans.

The government guarantees 50% of a business loan, up to a maximum guarantee of \$2,000; 60% of a home loan, up to a maximum guarantee of \$7,500. Maximum interest rate is 4%. The government pays the interest for the first year on the guaranteed portion of the loan. Loans are repayable for periods up to 30 years. In areas where 4% mortgage financing is not available, direct government mortgage loans up to \$10,000 may be made to veterans.

The unremarried widow of an eligible veteran who died in service or as a result of service-incurred disability is also eligible for all loan benefits.

Unemployment Benefits

Post-Korean veterans are eligible for unemployment benefits of \$26 a week for 26 weeks. They must have had active service after June 27, 1950, a discharge under conditions other than dishonorable, and at least 90 days total service unless discharged sooner for service-connected disability. The benefits will be paid by the State Unemployment offices, which will be reimbursed by the Federal government. Veterans will be expected to meet the same requirements as nonveteran applicants for jobless pay—that is, they must be willing and able to work, be looking for suitable work, etc.

Readjustment allowances for World War II veterans have ended except for those very few who enlisted or re-enlisted between Oct. 6, 1945, and Oct. 5, 1946. They have 2 years after their discharge in which to claim allowances.

Other Benefits

Veterans are also entitled to hospitalization and domiciliary benefits, to aid in acquiring specially adapted housing or automobiles if disabled, to guardianship service if incompetent, to burial benefits, and to death compensation and pensions payable to their dependents.

LABOR DEVELOPMENTS IN 1952

Labor—1952 will be best remembered for the historic seizure of the basic steel industry by President Truman and the Supreme Court's nullification of his action. The steel-labor issue was enough to put the skids under rigid pay controls by the stabilization agencies.

The steel dispute began with the New Year's Eve whistles of Dec. 31, 1951: that had been the original strike deadline set by Philip Murray in November. But President Truman was able to prevail on Murray to postpone the strike action indefinitely and leave the steel case to the decision of the Wage Stabilization Board. After lengthy hearings by a panel, as well as by the full Board, the WSB's recommendations were issued—with industry members dissenting. The Board's decision called for a wage increase of 26.4¢ an hour to be worked out in 3 installments over 1½ years. The union promptly accepted the recommendations, but industry rejected them. There followed frantic behind-the-scenes activity involving Defense Mobilizer Wilson and other top figures in the emergency administration. Ultimately the sharp disagreement on pay-price policy resulted in Wilson's resignation.

On April 8, Truman seized the industry and precipitated a Constitutional crisis. There were walkouts, followed by returns to work, as successive decisions in the various courts sustained or rejected the President's right to seize. Finally, on June 2, the Supreme Court, in a close ruling, held that the seizure was unwarranted, and the strike began all over again. For 53 days, basic steel production was almost completely halted. Workers lost \$350 million in pay. Production was set back by 19 million tons of steel. One and one-half million workers in the auto and other industries were made idle because of the steel shortage. Finally, at the insistence of the President, who had earlier rejected a Senate proposal that he use the Taft-Hartley law, labor and management got together and worked out a settlement which roughly approximated what the WSB had originally recommended. However, its union-shop recommendation was substantially watered down, through an agreement for a "modified" union shop.

As a direct consequence of the steel fracas, Congress sharply trimmed the WSB's authority in its extension of the Defense Production Act. No longer could the Board make recommendations for the settlement of dispute cases. This meant that such nonwage items as the union shop, assertedly the crucial issue in the steel dispute, were completely outside the Board's jurisdiction under the new law. Ironically, the Board found itself shorn of its powers

despite the fact that by early 1952 it had quite thoroughly shaken down its policies into workable form and employers had a clear notion of which payroll practices were okay. This was a condition drastically different from what they had experienced throughout most of 1951.

While heaving a sigh of relief at the resumption of steel production, which achieved capacity in an unbelievably short time, the country had to hold its breath at what John L. Lewis might spring in September negotiations. Lewis set his strike strategy to avoid creating a national emergency, which could bring the Taft-Hartley Act into action. He played his familiar game of setting off the Southern versus Northern operators; and when he issued his first strike call in September, he limited the stoppage so that only a fraction of coal production would be affected. With 85 days' supply of coal above ground, this made it clear that invoking the Taft-Hartley 90-day injunction would be meaningless. Principal negotiating goal for Lewis was to firm up the miners' pension and welfare fund, which had proved just barely solvent at the end of its fiscal year in mid-1952.

Over-all, 1952 presented a mixed bargaining picture. Wage pressure was not uniformly upward, consumer soft-goods industries managing without pay increases and in some instances managing to negotiate wage reductions (in textiles and hosiery). But strikes occurred in communications, lumber, building and construction, West Coast shipping and longshoring, and the retail trade. Sept. 1952 saw serious strikes develop in the West Coast aircraft industry, affecting Douglas and Lockheed.

The first half of 1952 was marked by a total of 30.7 million man-days lost—three times higher than the first half of 1951. There were fewer strikes than in the previous year, but the record steel stoppage boosted the number of man-days lost.

The Wage and Salary Boards had relaxed their pay controls even before Congress took action. The rulings covering pension and profit-sharing plans, health and welfare programs and, with respect to commissions, bonuses and other fringe benefits, had been substantially liberalized; and, had it not been for the critical developments in basic steel, both Boards might have continued in a fairly tranquil atmosphere.

Internally both the AFL and CIO took steps to minimize jurisdictional disputes and other family fights. Although there was a revival of jurisdictional differences between the International Association of

Machinists and other AFL unions in the building trades, the senior federation tried to smooth matters by banning picketing in jurisdictional disputes in construction. The top level of the CIO established jurisdictional settlement machinery with Dr. George Taylor as umpire. But a bargaining split developed in the Textile Workers, with George Baldanzi taking many of the CIO members into the AFL.

The eternal left-versus-right struggle in the CIO was marked by a drastic step in the United Auto Workers: The international set up a trusteeship to manage the affairs of Local 600 (Ford Motors).

As expected, the CIO and AFL were both active at the Presidential nominating conventions. One result of their activity was the retirement from the active political scene of Vice President Alben Barkley. The CIO was prompt to endorse the Democratic nominee, Stevenson. Then, for the first time in 28 years, the AFL's top brass proposed to endorse a candidate. Although General Eisenhower made some friends at the AFL New York convention, the formal endorsement went to Stevenson.

Directory of Government Labor Agencies

DEPARTMENT OF LABOR—Principal operating units are: The Bureau of Labor Statistics, Bureau of Labor Standards, Wage and Hour and Public Contracts Divisions, Women's Bureau. Principal offices—Labor Department Building, Constitution Avenue at 14th Street, N. W., Washington, D. C. Secretary of Labor, Maurice J. Tobin.

1. Bureau of Labor Statistics: Collects and distributes labor information and publishes the results of special studies on various aspects of the labor field, such as wages in different industries; effects of the war on employment, production, and labor conditions; productivity of labor and industry; and industrial relations. This information is issued in special bulletins and in the *Monthly Labor Review*. The Bureau maintains five Regional Offices throughout the country with its principal office in the Labor Department Building, Wash., D. C. Commissioner: Ewan Clague.

2. Bureau of Labor Standards: Established in 1934 to develop desirable labor standards in industrial practice, labor law administration and labor legislation, and to make specific recommendations concerning methods and measures designed to improve the working conditions and the economic position of wage earners. Director: William L. Connolly.

3. Wage and Hour and Public Contracts Divisions: Enforce minimum wage and overtime pay requirements of Federal laws. There are ten regional offices throughout the country and four territorial offices,

At mid-year, there were about 62 million employed. The general labor shortage which many authorities had predicted for 1952 did not develop—(1) because the stretchout of defense production postponed the peak of labor demand to 1953, and (2) because the steel strike's effects spread to many related industries. But there was a continued tightening of the supply of skilled workers. Some major areas (notably Detroit) actually found themselves with a labor surplus during most of 1952 and were given special consideration in the awarding of defense contracts. There were as many as 35 surplus areas at one point during the year.

One noteworthy development in collective bargaining was the tendency of unions to put bargaining emphasis on the "security" phases of the employer-employee relationship. There was strong insistence on severance pay, disability insurance, pensions, and seniority in layoffs, all of which evidenced union concern for what might happen when the defense plateau to be reached in mid-1953 begins to tilt downward.

which carry out the inspection work of the Divisions. Administrator: William R. McComb.

4. Women's Bureau: Charged with formulating standards and policies for promoting the welfare of wage-earning women, improving their working conditions, increasing their efficiency, and advancing their opportunities for profitable employment. Chief of the Bureau: Frieda S. Miller, Dept. of Labor Bldg., Wash., D. C.

Mediation and Conciliation Service—An independent agency under the direction of a Federal Conciliation and Mediation Director appointed by the President with the advice and consent of the Senate. Provides mediation services for disputes in interstate commerce, at the request of the parties or of its own volition. Principal office: Department of Labor Building. Director: David Cole.

National Labor Relations Board—An independent agency appointed by the President with the advice and consent of the Senate. Its principal functions are to determine employee representation and to decide unfair labor-practice cases. Chairman: George M. Herzog; General Counsel: George J. Bott. Principal office: Federal Security Bldg., South, 4th and Independence Ave., S.W., Washington 25, D.C. It maintains 22 regional offices.

National Mediation Board—Composed of three members appointed by the President, not more than two of whom may belong to the same political party. The Board in-

vestigates disputes over representation and mediates disputes concerning changes in rates of pay, rules or working conditions of employees subject to the Railway Labor Act. Principal office: General Services Administration Bldg., 18th and F Streets, N.W., Washington, D. C. Chairman: Lev-erett Edwards.

National Railroad Adjustment Board—Settles grievances and disputes arising out of interpretation of agreements concerning pay, rules or working conditions. Chairman: C. E. Peck; Vice Chairman: H. J. Carr.

Wage Stabilization Board—A branch of the Economic Stabilization Administration.

Labor Organizations

THE AMERICAN FEDERATION OF LABOR

The American Federation of Labor was founded in 1881 as the Federation of Organized Trades and Labor Unions of the United States and Canada, changing its name in 1886. Its basic approach was to organize workers by crafts and skills, rather than by geographical area as was the practice of the Knights of Labor which the AFL was successful in replacing. The present organizational structure is practically identical with that set up under the leadership of Samuel Gompers, president of the Cigar Makers International Union. The AFL is financed by per capita dues from each of the affiliated international unions which are autonomous, self-governing bodies. The Federation, however, has authority to fix the jurisdiction of its affiliated internationals, though it is not always able to enforce decisions. Federation officers are elected by annual conventions. The governing body between conventions is the Executive Council, elected by the convention.

The AFL consists of 107 international unions claiming 8 million members. Its principal activities are to aid constituent unions in organizing and bargaining, to promote or oppose legislation, litigate test cases in court, watch interpretation and enforcement of laws, represent its affiliates in tripartite government agencies, and act for its membership in international bodies. It also operates through city and state federations, and through councils or departments of allied crafts. The AFL has refrained from tying itself up too closely with any political party or government administration, but it has recognized the need for political education and action by organized labor by establishing in the year 1947 "Labor's League for Political Education." Most AFL unions are craft unions, although a number are industrial. By extension into a number of industries, some of the original craft unions have become multi-craft unions. The Brotherhood of Painters, Decorators, and Paper Hangers of America, AFL, is an illustration of a

Controls wages. Composed of 18 members, 6 representing industry, 6 labor, and 6 the public. Chairman: Archibald Cox. Principal office: Federal Security Bldg., 3rd and C Sts., N.W., Washington 25, D. C. It maintains 14 regional offices.

Salary Stabilization Board—A branch of the Economic Stabilization Agency. Controls salaries and compensation of employees exempt from the Wage-Hour Law, including executives. Composed of 5 members, all designated as representing the public. Chairman: Raymond B. Allen. Principal office: Federal Security Bldg., South, 4th and O Sts., S.W., Washington 25, D. C.

craft union whose jurisdiction includes building construction and maintenance work in many industries. Address: 901 Massachusetts Ave., N.W., Washington, D.C.

OFFICERS

AND EXECUTIVE COUNCIL OF AFL—1952

William Green, President	
George Meany, Secretary-Treasurer	
W. L. Hutcheson	W. L. McPetridge
Matthew Woll	W. C. Birthright
James C. Petrillo	W. C. Doherty
Geo. M. Harrison	David Dubinsky
Daniel J. Tobin	Charles J. MacGowan
Harry C. Bates	Herman Winter
Daniel W. Tracy	

CONGRESS OF INDUSTRIAL ORGANIZATIONS

The CIO resulted from a split within the AFL ranks. In order to organize the mass production industries, leaders of the industrial unions within the AFL won approval at the Federation's San Francisco convention in 1934 of a resolution endorsing industrial unionism in the automobile, cement, aluminum, and other mass-production industries. Failure of the AFL to organize the mass-production industries finally brought on a crisis at the 1935 convention at Atlantic City. Less than a month after this convention closed, led by John L. Lewis, Sidney Hillman, and David Dubinsky, the United Mine Workers, the Amalgamated Clothing Workers, the International Ladies Garment Workers Union, the United Textile Workers, the Oil Field, Gas and Refinery Workers, the International Union of Mine, Mill, and Smelter Workers founded the Committee for Industrial Organization. Other industrial unions shortly joined the Committee. In January, 1936, the Executive Council of the AFL ordered the CIO to dissolve and in August, upon its refusal to do so, suspended the ten unions. Disagreement on the desirability of reunification of labor

Membership of Leading American Labor Unions

Source: Bureau of Labor Statistics.

Name of Union	Affiliation	Number of members ¹	Date
Amalgamated Clothing Workers.....	CIO	395,000	1952
Amalgamated Meat Cutters and Butcher Workmen.....	AFL	205,200 ²	1952
American Federation of Musicians.....	AFL	240,200	1952
Brotherhood of Locomotive Firemen and Enginemen.....	Ind.	103,000	1952
Brotherhood of Maintenance of Way Employees.....	AFL	300,000 ²	1952
Brotherhood of Painters, Decorators, and Paperhangers.....	AFL	184,300 ²	1952
Brotherhood of Railroad Trainmen.....	Ind.	220,000	1952
Brotherhood of Railway and Steamship Clerks.....	AFL	350,000	1952
Building Service Employees' International Union.....	AFL	191,500 ²	1952
Communications Workers of America.....	CIO	300,000	1952
Hotel & Restaurant Employees' International Alliance.....	AFL	147,600 ²	1952
International Association of Machinists.....	AFL	750,000	1952
International Brotherhood of Boilermakers.....	AFL	200,000	1952
International Brotherhood of Electrical Workers.....	AFL	550,000	1952
International Brotherhood of Teamsters.....	AFL	1,200,000	1952
International Hod Carriers', Building and Common Laborers' Union.....	AFL	314,000 ²	1952
International Ladies' Garment Workers' Union.....	AFL	423,000 ²	1952
International Union of Mine, Mill and Smelter Workers.....	Ind.	90,000	1952
International Union of Electrical, Radio & Machine Workers.....	CIO	250,000	1952
International Union of Operating Engineers.....	AFL	200,000 ²	1952
Oilworkers' International Union.....	CIO	100,000	1952
Pulp, Sulphite, and Papermill Workers.....	AFL	134,900 ²	1952
Retail Clerks.....	AFL	210,000 ²	1952
United Association of Plumbers and Steam Fitters.....	AFL	180,000	1952
United Automobile, Aircraft & Agricultural Implement Workers.....	CIO	1,100,000	1952
United Brotherhood of Carpenters and Joiners.....	AFL	735,000	1952
United Electrical, Radio and Machine Workers.....	Ind.	150,000	1952
United Mine Workers.....	Ind.	600,000	1952
United Rubber, Cork, Linoleum and Plastic Workers.....	CIO	175,000	1952
United Steelworkers.....	CIO	1,000,000	1952

¹ Estimated membership, unless otherwise indicated. ² Per capita average annual membership as published in convention proceedings of AFL. ³ Data appearing in union reports.

led the ILGWU to return to the AFL, with John L. Lewis' UMW following suit later.

At present the Congress of Industrial Organizations includes 33 international unions with a claimed membership of approximately 6,000,000. The CIO has emphasized legislation as an aid to organization and collective bargaining drives. It has also formed a Political Action Committee to support candidates seeking public office whom it regards as pro-labor.

The CIO is financed by per capita dues from each of the affiliated international unions which are autonomous, self-governing bodies, as in the AFL. Unlike the

AFL, however, the parent organization has greater influence over the decisions of the individual unions. The CIO is governed by a General Executive Board, consisting of a representative from each international union. A smaller body of officers is elected by the annual convention. CIO headquarters: 718 Jackson Pl., Wash. 6, D. C.

INDEPENDENT UNIONS—It is generally estimated that 2,500,000 workers are organized in 69 independent unions, many of them operating as company- or plant-wide unions. Some are loosely united in the Confederated Unions of America, whose central headquarters are located at 809 "I" Street, N. W., Washington, D. C. The most important of the Independents, however, are organized much like the international unions of the AFL and CIO, some of them having withdrawn from the AFL.

1. **Railroad Brotherhoods.** The most prominent of the railroad unions are the four independent train service unions, commonly referred to as the "Brotherhoods." Labor organization in the railroads is predominantly along craft or occupational lines. The "Big Four" unaffiliated unions represent craft elements in the industry. They include the Brotherhood

OFFICERS OF CIO—1952

Philip Murray	President
Walter P. Reuther	Vice President
L. S. Buckmaster	Vice President
Joseph Curran	Vice President
Joseph A. Belrne	Vice President
Michael Quill	Vice President
Allan S. Haywood	Vice President
Emil Rieve	Vice President
Frank Rosenblum	Vice President
O. A. Knight	Vice President
James B. Carey	Secretary-Treasurer

of Locomotive Firemen and Enginemen, Brotherhood of Railroad Trainmen, Grand International Brotherhood of Locomotive Engineers, and the Order of Railway Conductors of America. Membership figures for the "Big Four" unaffiliated unions are as follows: Railway Conductors—45,000; Locomotive Firemen and Enginemen—98,687; Railroad Trainmen—210,624; Locomotive Engineers—79,667. Approximately 95% of the 1,400,000 employees on Class 1 railroads are covered by union agreements.

The railroad unions, except for the Railroad Trainmen and the Locomotive Engineers, attempt some form of united action through the Railway Labor Executives Assn., which includes some AFL unions.

2. Foreman's Association of America. The organization of supervisors became an active issue after the effective organization of production workers by the newly organized industrial unions. In 1941, foremen from numerous Detroit automobile plants organized an independent union, the Foreman's Association of America, which later expanded its membership into other industries and areas. FAA obtained a contract from the Ford Motor Company in 1943 but met with resistance from other auto manufacturers. Organizational activ-

ities were aided by the decision of the National Labor Relations Board in 1945, holding that foremen were entitled to bargain collectively under the Wagner Act.

This trend was reversed by passage of the Taft-Hartley Law in June, 1947. By amendment of the Wagner Act, it eliminated supervisors from the statutory definition of employee, thereby denying organizational protection and mandatory collective bargaining rights to classes of supervisory employees. Shortly after this happened, FAA lost 13 of its chapters, including its largest group, at Packard. The union now claims 19,642 members with 92 chapters. Its headquarters are located at 1627 Cadillac Tower, Detroit, Mich.

3. United Mine Workers. Includes practically all the anthracite and bituminous coal miners in the U. S. It also operates a catch-all unit, District 50, which competes with AFL and CIO unions in a number of industries. The UMW withdrew from the AFL in December 1947 because of the refusal of the Executive Council to adopt John L. Lewis' proposal that its members refuse to sign the Taft-Hartley non-Communist affidavits. UMW membership is estimated at 600,000. Headquarters: 900 15th St., N.W., Washington 5, D.C.

Terms Used in Labor Relations

BARGAINING UNIT—A group of employees composed of workers in a single craft, plant, company, area, or industry for purpose of bargaining collectively with their employer or employers. Such units may be determined by traditional grouping of workers, or by NLRB or a state labor relations board.

CHECKOFF—Employer deduction of union dues from the pay envelope of union members and payment of the funds to the union.

CLOSED SHOP—An employer may hire only members of the contracting union who must continue to remain members in good standing to keep their jobs.

CLOSED UNION—A union which, through high initiation fees or restrictive membership rules, seeks to limit the size of its membership in order to protect their job opportunities. (See *Union shop*.)

COMPANY UNION—An employee organization whose membership is limited to the employees of a single plant or company, and which is not affiliated with any other labor organization. The term is frequently used to denote a company-dominated union, now illegal under the NLRA.

CRAFT UNION—Organizes workers on the basis of one of more related skills, regardless of the industries in which they work.

FEATHERBEDDING—Union work rules which limit output or utilization of labor-saving devices.

INDUSTRIAL UNION—Organizes all workers in a particular industry, skilled and unskilled. Predominant in the mass-production industries.

JURISDICTIONAL DISPUTE—A dispute between two or more unions over the right to organize the employees in a particular trade, industry or plant, or the right to perform a particular job.

YELLOW-DOG CONTRACT—An agreement signed by an employee with his employer as a condition of employment setting forth the employee's promise that he would not join a labor union or otherwise participate in any concerted action. Such contracts are now outlawed by the NLRB.

Fair Employment Practice Laws

Discrimination in hiring, job tenure, or conditions of employment because of race, color, creed or national origin, is forbidden by the laws of these states: California, Colorado, Connecticut, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, Washington and Wisconsin.

Certain cities also have ordinances, among them Chicago, Cleveland, Gary, Milwaukee, Minneapolis, Philadelphia and Youngstown.

★ WHO'S WHO ★

Prepared by

A. N. MARQUIS CO., *Publishers of WHO'S WHO IN AMERICA*

Locations and dates are those of birth. A name in parentheses is the original name or form of the name of the individual.

The vital statistics offered in this section have been gathered from various sources, including the subjects thereof, but neither *Who's Who in America* nor the *Information Please Almanac* can guarantee the accuracy of each individual item. We have learned to accept the date and place of birth that any lady or gentleman claims for herself or himself and not argue about it. Where we have not been able to learn the date and place of birth, we have not attempted to invent the items.

JOHN KIERAN, *Editor*

A

ABBOT, Charles G. (astrophysicist); Wilton, N. H., May 31, 1872.

ABBOTT, Bud (William) (actor); Asbury Park, N. J., Oct. 2, 1898.

ABBOTT, George (director & dramatist); Forestville, N. Y., June 25, 1889.

ABEL, Sid (hockey coach); Melville, Sask., Can., Feb. 22, 1918.

ABEL, Walter (actor); St. Paul, Minn., June 6, 1898.

ACHESON, Dean (U. S. statesman); Middletown, Conn., Apr. 11, 1893.

ADAMS, Franklin P. (author); Chicago, Ill., Nov. 15, 1881.

ADAMS, Jack (hockey executive); Ft. William, Ont., Can., June 14, 1895.

ADAMS, Maude (Maude Kiskadden) (actress); Salt Lake City, Utah, Nov. 11, 1872.

ADAMS, Samuel Hopkins (novelist); Dunkirk, N. Y., Jan. 26, 1871.

ADENAUER, Konrad (German statesman); Cologne, Ger., Jan. 5, 1876.

ADLER, Larry (harmonica player); Baltimore, Md., Feb. 10, 1914.

ADLER, Luther (actor); New York City, May 4, 1903.

ADLER, Mortimer J. (philosopher); New York City, Dec. 28, 1902.

AHERNE, Brian (actor); Kings Norton, Eng., May 2, 1902.

AIKEN, Conrad (poet); Savannah, Ga., Aug. 5, 1889.

AKINS, Zoë (dramatist); Humansville, Mo., Oct. 30, 1886.

ALBANESE, Licia (soprano); Bari, It., July 22, 1913.

ALBERT, Eddie (Eddie Albert Heimberher) (actor); Rock Island, Ill., Apr. 22, 1908.

ALBRIGHT, Ivan Le Lorraine (painter); Chicago, Ill., Feb. 20, 1897.

ALBRIGHT, Malvin (painter & sculptor); Chicago, Ill., Feb. 20, 1897.

ALDA, Robert (actor); New York City, Feb. 26, 1914.

ALDINGTON, Richard (poet); Hampshire, Eng., 1892.

ALLEN, Fred (John F. Sullivan) (comedian); Cambridge, Mass., May 31, 1894.

ALLEN, Gracie (comedienne); San Francisco, Calif., July 26, 1906.

ALLEN, Steve (comedian); New York City, Dec. 26, 1921.

ALLYSON, June (actress); Westchester Co., N. Y.

AMECHE, Don (actor); Kenosha, Wis., May 31, 1908.

AMORY, Cleveland (novelist); Nahant, Mass., Sept. 2, 1917.

AMOS (Freeman F. Gosden) (actor); Richmond, Va., May 5, 1899.

AMSTERDAM, Morey (comedian); Chicago, Ill., Dec. 14, 1912.

ANDERS, Glen (actor); Los Angeles, Calif., Sept. 1, 1890.

ANDERSON, Eddie. *See* Rochester.

ANDERSON, Judith (actress); Adelaide, Austr., Feb. 10, 1898.

ANDERSON, Marian (contralto); Philadelphia, Pa., Feb. 17, 1902.

ANDERSON, Maxwell (dramatist); Atlantic, Pa., Dec. 15, 1888.

ANDREWS, Dana (actor); Collins, Miss., Jan. 1, 1912.

ANDREWS, Laverne (singer); Minneapolis, Minn., July 6, 1915.
 ANDREWS, Maxene (singer); Minneapolis, Minn., Jan. 3, 1918.
 ANDREWS, Patricia (singer); Minneapolis, Minn., Feb. 16, 1920.
 ANDREWS, Roy Chapman (zoologist & explorer); Beloit, Wis., Jan. 26, 1884.
 ANDY, (Charles J. Correll) (actor); Peoria, Ill., Feb. 2, 1890.
 ANGELI, Pier (actress); Cagliari, It., June 19, 1932.
 ANSERMET, Ernest (orchestra conductor); Vevey, Vaud, Switz., Nov. 11, 1883.
 ANTHEIL, George (composer); Trenton, N. J., July 8, 1890.
 ARAGON, Louis (poet); France, 1895.
 ARCARO, Eddie (jockey); Cincinnati, Ohio, Feb. 19, 1916.
 ARCHIPENKO, Alexander (sculptor); Kiev, Rus., May 30, 1887.
 ARDEN, Eve (Eunice Quedens) (actress); Mill Valley, Calif.
 ARLEN, Harold (Hyman Arluck) (composer); Buffalo, N. Y., Feb. 15, 1905.
 ARMOUR, Tommy (golfer); Edinburgh, Scot., Sept. 24, 1895.
 ARMSTRONG, Henry (boxer); St. Louis, Mo., Dec. 12, 1912.
 ARMSTRONG, Louis (trumpeter); New Orleans, La., July 4, 1900.
 ARNO, Peter (cartoonist); New York City, Jan. 8, 1904.
 ARNOLD, Edward (actor); New York City, Feb. 18, 1890.
 ARRAU, Claudio (pianist); Chillan, Chile, Feb. 6, 1904.
 ARTHUR, Jean (Gladys Greene) (actress); New York City, Oct. 17, 1908.
 ASCH, Sholem (novelist); Kutno, Pol., Nov. 1, 1880.
 ASTAIRE, Fred (Frederick Austerlitz) (dancer); Omaha, Nebr., May 10, 1899.
 ATKINSON, Ted (jockey); Toronto, Ont., Can., June 17, 1916.
 ATTLEE, Clement R. (British statesman); London, Eng., Jan. 3, 1883.
 AUDEN, Wystan Hugh (poet); York, Eng., Feb. 21, 1907.
 AUER, Mischa (actor); Petrograd, Rus., Nov. 17, 1905.
 AURIOL, Vincent (French statesman); Revel, Fr., Aug. 27, 1884.
 AUSTIN, Warren R. (U. S. statesman); Highgate, Vt., Nov. 12, 1877.
 AUTRY, Gene (actor); Tioga, Tex., Sept. 29, 1907.
 AYRES, Lew (actor); Minneapolis, Minn., Dec. 28, 1908.

B

BACALL, Lauren (actress); New York City, Sept. 16, 1924.
 BACCALONI, Salvatore (basso); Rome, It., Apr. 14, 1900.
 BAER, Max (boxer); Omaha, Nebr., Feb. 11, 1909.
 BAILEY, Pearl (singer); Newport News, Va., 1918.
 BAINTER, Fay (actress); Los Angeles, Calif., 1893.
 BAKER, Josephine (singer); St. Louis, Mo., 1907.
 BAKER, Kenny (singer); Monrovia, Calif., Sept. 30, 1912.
 BALANCHINE, George (ballet director); Petrograd, Rus., Jan. 9, 1904.
 BALDWIN, Faith (novelist); New Rochelle, N. Y., Oct. 1, 1893.
 BALL, Lucille (actress); Butte, Mont., Aug. 6, 1911.
 BAMPTON, Rose (contralto); Cleveland, Ohio, Nov. 28, 1909.
 BANKHEAD, Tallulah (actress); Huntsville, Ala., Jan. 31, 1903.
 BARBER, Samuel (composer); West Chester, Pa., Mar. 9, 1910.
 BARBIROLLI, Sir John (orchestra conductor); London, Eng., Dec. 2, 1899.
 BARKER, Lex (actor); Rye, N. Y., May 8, 1919.
 BARKLEY, Alben W. (U. S. statesman); Graves Co., Ky., Nov. 24, 1877.
 BARLOW, Howard (orchestra conductor); Plain City, Ohio, May 1, 1892.
 BARNES, Margaret Ayer (novelist); Chicago, Ill., Apr. 8, 1886.
 BARRAT, Robert (actor); New York City, July 10, 1891.
 BARRYMORE, Diana (actress); New York City, Mar. 3, 1921.
 BARRYMORE, Ethel (actress); Philadelphia, Pa., Aug. 15, 1879.
 BARRYMORE, Lionel (actor); Philadelphia, Pa., Apr. 28, 1878.
 BARTHELMESS, Richard (actor); New York City, May 9, 1897.
 BARTHOLOMEW, Freddie (actor); London, Eng., Mar. 28, 1924.
 BARTON, James (actor); Gloucester, N. J., Nov. 1, 1890.
 BARUCH, Bernard (financier); Camden, S. C., Aug. 19, 1870.
 BASIE, Count (William) (band leader); Red Bank, N. J., Aug. 21, 1906.
 BATCHELOR, Clarence Daniel (cartoonist); Osage City, Kans.

- BAUDOUIN (King of Belgium); Palace of Laeken, Belg., Sept. 7, 1930.
- BAUGH, Sammy (football player); Temple, Tex., Mar. 17, 1914.
- BAUM, Vicki (novelist); Vienna, Aus., Jan. 24, 1896.
- BAX, Sir Arnold (composer); London, Eng., Nov. 8, 1883.
- BAXTER, Anne (actress); Michigan City, Ind., May 7, 1923.
- BAZIOTES, William (painter); Pittsburgh, Pa., June 11, 1912.
- BEAL, Gifford (painter); New York City, Jan. 24, 1879.
- BEARD, Mary R. (sociologist); Indianapolis, Ind., Aug. 5, 1876.
- BEEBE, William (zoologist); Brooklyn, N. Y., July 29, 1877.
- BEECHAM, Sir Thomas (orchestra conductor); St. Helens, Eng., Apr. 29, 1879.
- BEERBOHM, Sir Max (novelist); London, Eng., Aug. 24, 1872.
- BEHRMAN, Samuel N. (dramatist); Worcester, Mass., June 9, 1893.
- BELL, Bert (football executive); Philadelphia, Pa., Feb. 25, 1894.
- BELLAMY, Ralph (actor); Chicago, Ill., June 17, 1905.
- BELLOC, Hilaire (historian & essayist); La Celle, St. Cloud, Fr., July 27, 1870.
- BEMELMANS, Ludwig (essayist); Meran, Tirol, Apr. 27, 1898.
- BENAVENTE y MARTÍNEZ, Jacinto (dramatist); Madrid, Sp., Aug. 12, 1866.
- BENDIX, William (actor); New York City, Jan. 14, 1906.
- BEN-GURION, David (Israeli statesman); Plónsk, Pol., Oct. 16, 1886.
- BENNETT, Joan (actress); Palsades, N. J., Feb. 27, 1910.
- BENNETT, Robert Russell (composer); Kansas City, Mo., June 15, 1894.
- BENNY, Jack (Benny Kubelsky) (comedian); Waukegan, Ill., Feb. 14, 1894.
- BENTON, Thomas Hart (painter); Neosho, Mo., Apr. 15, 1889.
- BERGEN, Edgar (ventriloquist); Chicago, Ill., Feb. 16, 1903.
- BERGMAN, Ingrid (actress); Stockholm, Swed., 1917.
- BERGNER, Elisabeth (actress); Vienna, Aus., Aug. 22, 1900.
- BERLE, Milton (Milton Berlinger) (comedian); New York City, July 12, 1908.
- BERLIN, Irving (Isidore Baline) (song writer); Temun, Russia, May 11, 1888.
- BERNSTEIN, Leonard (composer & conductor); Lawrence, Mass., Aug. 25, 1918.
- BERRA, Yogi (Lawrence) (baseball player); St. Louis, Mo., May 12, 1925.
- BERRYMAN, James T. (cartoonist); Washington, D. C., June 8, 1902.
- BEST, Edna (actress); Hove, Sussex, Eng., Mar. 3, 1900.
- BEVAN, Aneurin (British statesman); Tredegar, Eng., Nov. 1897.
- BIBLE, Dana X. (football coach); Jefferson City, Tenn., Oct. 8, 1891.
- BICKFORD, Charles (actor); Cambridge, Mass.
- BIERMAN, Bernard W. (football coach); Springfield, Minn., Mar. 11, 1894.
- BIGLEY, Isabel (actress); New York City, Feb. 23, 1928.
- BING, Rudolf (opera executive); Vienna, Aus., Jan. 9, 1902.
- BINGHAM, William J. (athletic executive); Norristown, Pa., Aug. 8, 1889.
- BJOERLING, Jussie (tenor); Stora Tuna Dalarna, Swed., Feb. 2, 1911.
- BLACK, Frank (orchestra conductor); Philadelphia, Pa., Nov. 28, 1894.
- BLACK, Hugo L. (U. S. jurist); Harlan, Ala., Feb. 27, 1886.
- BLAIK, Earl H. (football coach); Detroit, Mich., Feb. 15, 1897.
- BLAINE, Vivian (actress); Newark, N. J., Nov. 21, 1921.
- BLAIR, Janet (actress); Blair, Pa.
- BLITZSTEIN, Marc (composer); Philadelphia, Pa., Mar. 2, 1905.
- BLOCH, Ernest (composer); Geneva, Switz., July 24, 1880.
- BLONDELL, Joan (actress); New York City, Aug. 30, 1909.
- BLUME, Peter (painter); Russia, 1906.
- BOGART, Humphrey (actor); New York City, Dec. 25, 1900.
- BOHR, Niels (physicist); Copenhagen, Den., Oct. 7, 1885.
- BOLGER, Ray (actor); Dorchester, Mass., Jan. 10, 1906.
- BONDI, Beulah (actress); Chicago, Ill., May 3, 1892.
- BONELLI, Richard (Richard Bunn) (baritone); Port Byron, N. Y.
- BOOTH, Shirley (actress); New York City.
- BORI, Lucrezia (Lucrecia Borja González de Riancho) (soprano); Valencia, Sp., Dec. 24, 1887.
- BORZAGE, Frank (movie director); Salt Lake City, Utah, Apr. 23, 1893.
- BOSTWICK, Pete (George H.) (polo player); New York City, Aug. 14, 1909.
- BOTTOME, Phyllis (novelist); Rochester, Eng., May 31, 1884.
- BOUCHER, Frank (hockey executive); Ottawa, Ont., Can., Oct. 7, 1901.
- BOUDREAU, Lou (baseball manager); Harvey, Ill., July 17, 1917.

- BOULANGER, Nadia (music teacher); Paris, Fr., Sept. 16, 1887.
- BOULT, Sir Adrian (orchestra conductor); Chester, Eng., Apr. 8, 1889.
- BOWEN, Catherine Drinker (biographer); Haverford, Pa., Jan. 1, 1897.
- BOWEN, Elizabeth (novelist); Dublin, Ire., June 7, 1899.
- BOWLES, Paul (novelist); New York City, Dec. 30, 1910.
- BOYD, William (actor); Cambridge, Ohio, June 5, 1898.
- BOYER, Charles (actor); Flégeac, Fr., Aug. 28, 1899.
- BOYER, Lucienne (singer); France.
- BOYLE, Kay (novelist & poet); St. Paul, Minn., Feb. 19, 1903.
- BRACKEN, Eddie (actor); Astoria, N. Y., Feb. 7, 1920.
- BRADDOCK, James J. (boxer); North Bergen, N. J., Dec. 6, 1905.
- BRADLEY, Omar N. (U. S. general); Clark, Mo., Feb. 12, 1893.
- BRAILOWSKY, Alexander (pianist); Kiev, Rus., Feb. 16, 1896.
- BRANCUSI, Constantin (sculptor); Rumania, 1876.
- BRANGWYN, Sir Frank (painter); Bruges, Belg., May 13, 1867.
- BRANZELL, Karin (contralto); Stockholm, Swed., Sept. 24, 1891.
- BRAQUE, Georges (painter); Argenteuil, Fr., May 13, 1882.
- BRECHT, Bertolt (dramatist); Augsburg, Bavaria, 1898.
- BRENNAN, Walter (actor); Lynn, Mass., July 26, 1894.
- BRENT, Romney (Romulo Larraide) (actor); Satillo, Mex., Jan. 26, 1902.
- BRICE, Carol (contralto); Indianapolis, Ind., Apr. 16, 1918.
- BRITAIN, Vera (author); Newcastle, Staffs., Eng.
- BRITTEN, Benjamin (composer); Lowestoft, Eng., Nov. 22, 1913.
- BROMFIELD, Louis (novelist); Mansfield, Ohio, Dec. 27, 1896.
- BROOK, Alexander (painter); Brooklyn, N. Y., July 14, 1898.
- BROOKS, Van Wyck (literary critic); Plainfield, N. J., Feb. 16, 1886.
- BROUGH, A. Louise (tennis player); Oklahoma City, Okla., Mar. 11, 1923.
- BROWN, Joe E. (actor); Holgate, Ohio, July 28, 1892.
- BROWN, John Mason (drama critic); Louisville, Ky., July 3, 1900.
- BROWN, Pamela (actress); London, Eng., July 8, 1918.
- BROWN, Paul E. (football coach); Norwalk, Ohio, Sept. 7, 1908.
- BROWNLEE, John (baritone); Geelong, Austr., Jan. 7, 1901.
- BRUCE, Carol (singer); Great Neck, N. Y., Nov. 15, 1919.
- BRUCE, Nigel (actor); San Diego, Calif., Feb. 4, 1895.
- BRUNDAGE, Avery (sports executive); Detroit, Mich., Sept. 28, 1887.
- BRYSON, Lyman (educator); Valentine, Nebr., July 12, 1888.
- BUCK, Pearl S. (novelist); Hillsboro, W. Va., June 26, 1892.
- BUDGE, J. Donald (tennis player); Oakland, Calif., June 13, 1915.
- BUNIN, Ivan (novelist); Voronezh, Rus., Oct. 10, 1870.
- BURCHFIELD, Charles E. (watercolorist); Ashtabula, Ohio, Apr. 9, 1893.
- BURKE, Billie (actress); Washington, D. C., Aug. 7, 1886.
- BURNS, Bob (actor); Van Buren, Ark., Oct. 2, 1896.
- BURNS, George (Nathan Birnbaum) (comedian); New York City, Jan. 20, 1896.
- BURNS, Tommy (Noah Brusso) (boxer); Hanover, Can., June 17, 1881.
- BURROWS, Abe (comedian & gag writer); New York City, Dec. 18, 1910.
- BURTON, Harold H. (U. S. jurist); Jamaica Plain, Mass., June 29, 1888.
- BUSH, Vannevar (engineer); Everett, Mass., Mar. 11, 1890.
- BUSHNELL, Asa S. (sports executive); Springfield, Ohio, Feb. 1, 1900.
- BYNNER, Witter (poet); Brooklyn, N. Y., Aug. 10, 1881.
- BYRD, Richard E. (explorer); Winchester, Va., Oct. 25, 1888.

C

- CABELL, James Branch (novelist); Richmond, Va., Apr. 14, 1879.
- CADMUS, Paul (painter & etcher); New York City, Dec. 17, 1904.
- CAESAR, Sid (comedian); Yonkers, N. Y., Sept. 8, 1922.
- CAGNEY, James (actor); New York City, July 17, 1904.
- CAIN, James M. (novelist); Annapolis, Md., July 1, 1892.
- CALDER, Alexander ("mobile" sculptor); Lawnton, Pa., July 22, 1898.
- CALDWELL, Charles W., Jr. (football coach); Bristol, Va.-Tenn., Aug. 2, 1902.
- CALDWELL, Erskine (novelist); White Oak, Ga., Dec. 17, 1903.
- CALDWELL, Taylor (novelist); Preswick, Eng., Sept. 7, 1900.

- CALHERN, Louis (actor); New York City, 1895.
- CALLOWAY, Cab (band leader); Rochester, N. Y., Dec. 25, 1907.
- CALVET, Corinne (actress); Paris, Fr., Apr. 30, 1926.
- CAMPANELLA, Roy (baseball player); Philadelphia, Pa., Nov. 19, 1921.
- CAMPBELL, Clarence (hockey executive); Fleming, Sask., Can., July 9, 1905.
- CAMUS, Albert (novelist); Algiers, 1913.
- CANBY, Henry Seidel (literary critic); Wilmington, Del., Sept. 6, 1878.
- CANIFF, Milton (cartoonist); Hillsboro, Ohio, Feb. 28, 1907.
- CANOVA, Judy (actress); Jacksonville, Fla., Nov. 20, 1916.
- CANTOR, Eddie (Edward Iskowitz) (comedian); New York City, Jan. 31, 1892.
- CAPOTE, Truman (novelist); New Orleans, La., Sept. 30, 1924.
- CAPP, Al (cartoonist); New Haven, Conn., Sept. 28, 1909.
- CAPRA, Frank (movie director); Palermo, Sicily, May 18, 1897.
- CARLE, Frankie (pianist); Providence, R. I., Mar. 15, 1903.
- CARMICHAEL, Hoagy (Hoagland) (song writer); Bloomington, Ind., Nov. 22, 1899.
- CARRADINE, John (actor); New York City, Feb. 5, 1906.
- CARROLL, John (painter); Wichita, Kans., Aug. 14, 1892.
- CARROLL, Leo G. (actor); Weedon, Eng.
- CARROLL, Madeleine (actress); Bromwich, Eng., Feb. 26, 1909.
- CARROLL, Paul Vincent (dramatist); Dundalk, Ire., July 10, 1900.
- CARSON, Jack (actor); Carman, Can., Oct. 27, 1910.
- CARSON, Rachel (science writer); Springdale, Pa., May 27, 1907.
- CARY, Joyce (novelist); Londonderry, Ire., Dec. 7, 1888.
- CASADESUS, Gaby (pianist); Marseilles, Fr., Aug. 9, 1902.
- CASADESUS, Robert (pianist); Paris, Fr., Apr. 7, 1899.
- CASALS, Pablo (cellist); Vendrell, Sp., Dec. 29, 1876.
- CASSIDY, Marshall (horse race executive); Washington, D. C., Feb. 21, 1892.
- CASTAGNA, Bruna (contralto); Milan, It., Oct. 15, 1908.
- CASTELNUOVO-TEDESCO, Mario (composer); Florence, It., Apr. 3, 1895.
- CAULFIELD, Joan (actress); Orange, N. J., June 1, ??.
- CAVALLERO, Carmen (band leader); New York City, May 6, 1913.
- CHAGALL, Marc (painter); Vitebsk, Rus., July 7, 1887.
- CHANDLER, Jeff (Ira Grossel) (actor); Brooklyn, N. Y., Dec. 15, 1918.
- CHANNING, Carol (comedienne); Seattle, Wash., Jan. 31, 1921.
- CHAPLIN, Charles (comedian); London, Eng., Apr. 16, 1889.
- CHAPMAN, Dick (golfer); Greenwich, Conn., Mar. 23, 1911.
- CHARLES, Ezzard (boxer); Atlanta, Ga., July 20, 1921.
- CHARPENTIER, Gustave (composer); Dieuze, Fr., June 25, 1860.
- CHASE, Iika (actress); New York City, Apr. 8, 1905.
- CHASE, Stuart (economist); Somersworth, N. H., Mar. 8, 1888.
- CHASINS, Abram (pianist); New York City, Aug. 17, 1903.
- CHAVEZ, Carlos (composer); near Mexico City, Mex., June 13, 1899.
- CHEVALIER, Maurice (actor); Paris, Fr., Sept. 12, 1888.
- CHIANG Kai-shek (Chinese statesman); Feng-hwa, China, Oct. 31, 1887.
- CHIRICO, Giorgio de (painter); Volo, Gr., July 10, 1888.
- CHOU En-lai (Chinese statesman); Huaiyin, China, 1898.
- CHRISTIE, Agatha (novelist); Torquay, Eng., 189?.
- CHURCHILL, Sarah (actress); London, Eng., Oct. 7, 1914.
- CHURCHILL, Winston S. (British statesman); Oxfordshire, Eng., Nov. 30, 1874.
- CLAIR, René (René Chomette) (movie director); Paris, Fr., Nov. 11, 1898.
- CLAIRE, Ina (Ina Fagan) (actress); Washington, D. C., Oct. 15, 1892.
- CLARK, Bobby (comedian); Springfield, Ohio, June 18, 1888.
- CLARK, Dane (actor); New York City, Feb. 18, 1915.
- CLARK, Thomas C. (U. S. jurist); Dallas, Tex., Sept. 23, 1899.
- CLIFT, Montgomery (actor); Omaha, Nebr., Oct. 17, 1920.
- CLOETE, Stuart (novelist); Paris, Fr., July 23, 1897.
- CLOONEY, Rosemary (singer); Maysville, Ohio.
- COATES, Albert (orchestra conductor); Petrograd, Rus., Apr. 23, 1882.
- COATES, Eric (composer); Hucknall, Eng., Aug. 27, 1886.
- COBB, Lee J. (actor); New York City, Dec. 8, 1911.
- COBB, Ty (Tyrus R.) (baseball player); Banks Co., Ga., Dec. 17, 1886.

- COBURN, Charles (actor); Savannah, Ga., June 19, 1877.
- COCA, Imogene (comedienne); Philadelphia, Pa.
- COCHRANE, Mickey (Gordon S.) (baseball player); Bridgewater, Mass., Apr. 6, 1903.
- COCTEAU, Jean (poet & dramatist); Maisons-Laffitte, Fr., July 5, 1891.
- COFFEY, Jack (athletic director); New York City, Jan. 28, 1888.
- COFFIN, Robert P. T. (poet); Brunswick, Maine, Mar. 18, 1892.
- COLBERT, Claudette (Lily Chauchoin) (actress); Paris, Fr., Sept. 13, 1905.
- COLETTE (Sidonie-Gabrielle Colette) (novelist); Saint-Sauveur, Fr., c. 1873.
- COLLINGE, Patricia (actress); Dublin, Ire., Sept. 20, 1894.
- COLMAN, Ronald (actor); Richmond, Eng., Feb. 9, 1891.
- COLONNA, Jerry (comedian); Boston, Mass., Mar. 25, 1903.
- COLUM, Padraic (poet & dramatist); Longford, Ire., Dec. 8, 1881.
- COMMAGER, Henry S. (historian); Pittsburgh, Pa., Oct. 25, 1902.
- COMO, Perry (Pierino) (singer); Canonsburg, Pa., May 13, 1913.
- COMPTON, Arthur H. (physicist); Wooster, Ohio, Sept. 10, 1892.
- COMPTON, Karl T. (physicist); Wooster, Ohio, Sept. 14, 1887.
- CONNALLY, Thomas T. (U. S. legislator); McLennan Co., Tex., Aug. 19, 1877.
- CONNELLY, Marc (dramatist); McKeesport, Pa., Dec. 13, 1890.
- CONNOLLY, Maureen (tennis player); San Diego, Calif., Sept. 17, 1934.
- CONTE, Richard (actor); New York City, Mar. 24, 1914.
- COOGAN, Jackie (actor); Los Angeles, Calif., Oct. 26, 1914.
- COOLIDGE, William D. (physical chemist); Hudson, Mass., Oct. 23, 1873.
- COOPER, Gary (Frank) (actor); Helena, Mont., May 7, 1901.
- COOPER, Jackie (actor); Los Angeles, Calif., Sept. 15, 1922.
- COPLAND, Aaron (composer); Brooklyn, N. Y., Nov. 14, 1900.
- CORBETT, Leonora (actress); London, Eng., June 28, 1908.
- CORBINO, Jon (painter); Vittoria, It., Apr. 3, 1905.
- COREY, Wendell (actor); Dracut, Mass., Mar. 20, 1914.
- CORNELL, Katherine (actress); Berlin, Ger., Feb. 16, 1898.
- CORRELL, Charles J. *See* Andy.
- CORTOT, Alfred (pianist); Nyon, Fr., Sept. 26, 1877.
- CORWIN, Norman (radio dramatist); Boston, Mass., May 3, 1910.
- COSTAIN, Thomas Bertram (novelist); Brantford, Can., May 8, 1885.
- COSTELLO, Lou (Louis Cristillo) (actor); Paterson, N. J., Mar. 6, 1908.
- COTTEN, Joseph (actor); Petersburg, Va., 1905.
- COTTON, Henry (golfer); Jan. 26, 1907.
- COVARRUBIAS, Miguel (illustrator); Mexico City, Mex., 1902.
- COWARD, Noel (dramatist & actor); Teddington, Eng., Dec. 16, 1899.
- COWELL, Henry (composer); Menlo Park, Calif., Mar. 11, 1897.
- COWLEY, Malcolm (critic & editor); Bel-sano, Pa., Aug. 24, 1898.
- COZZENS, James Gould (novelist); Chicago, Ill., Aug. 19, 1903.
- CRAIN, Jeanne (actress); Barstow, Calif., May 25, 1925.
- CRAWFORD, Broderick (actor); Philadelphia, Pa., Dec. 9, 1911.
- CRAWFORD, Joan (Lucille LeSueur) (actress); San Antonio, Tex., Mar. 23, 1908.
- CRESTON, Paul (composer); New York City, Oct. 10, 1906.
- CRISLER, Fritz (Herbert O.) (sports executive); Earlville, Ill., Jan. 12, 1899.
- CRISP, Donald (actor); London, Eng.
- CROCE, Benedetto (philosopher); Pescasseroli, It., Feb. 25, 1866.
- CROMWELL, Dean B. (track & field coach); Turner, Oreg., Sept. 20, 1879.
- CRONIN, Archibald J. (novelist); Cardross, Scot., July 19, 1896.
- CRONIN, Joe (baseball manager); San Francisco, Calif., Oct. 12, 1906.
- CRONYN, Hume (actor); London, Ont., Can.
- CROOKS, Richard (tenor); Trenton, N. J., June 26, 1900.
- CROSBY, Bing (Harry) (actor & singer); Tacoma, Wash., May 2, 1904.
- CROSS, Milton (radio announcer); New York City, Apr. 16, 1897.
- CROTHERS, Rachel (dramatist); Bloomington, Ill., Dec. 12, 1878.
- CROUSE, Russel (dramatist); Findlay, Ohio, Feb. 20, 1893.
- CUGAT, Xavier (orchestra leader); Barcelona, Sp., Jan. 1, 1900.
- CUKOR, George (movie director); New York City, July 7, 1899.
- CUMMINGS, Edward Estlin (poet); Cambridge, Mass., Oct. 14, 1894.
- CUMMINGS, Robert (actor); Joplin, Mo., June 9, 1910.

CURTIS, Tony (actor); New York City, June 3, 1925.
 CURTIZ, Michael (movie director); Budapest, Hung., Dec. 24, 1888.
 CURZON, Clifford (pianist); London, Eng., May 18, 1907.

D

DAILEY, Dan (actor); New York City.
 DALL, Salvador (painter); Figueras, Sp., May 11, 1904.
 DAMONE, Vic (singer); Brooklyn, N. Y., June 12, 1928.
 DANILOVA, Alexandra (dancer); Peterhof, Rus.
 DARCEL, Denise (actress); Paris, Fr., 1926.
 DARNELL, Linda (actress); Dallas, Tex.
 DARRIEUX, Danielle (actress); Bordeaux, Fr., May 1, 1917.
 DAVENPORT, Marcia (novelist); New York City, June 9, 1903.
 DAVIS, Bette (actress); Lowell, Mass., Apr. 5, 1908.
 DAVIS, Elmer (radio commentator); Aurora, Ind., Jan. 13, 1890.
 DAVIS, Gladys Rockmore (painter); New York City, May 11, 1901.
 DAVIS, Joan (actress); St. Paul, Minn.
 DAVIS, Stuart (painter); Philadelphia, Pa., Dec. 7, 1894.
 DAY, Dennis (singer); New York City, May 21, 1917.
 DAY, Doris (singer); Cincinnati, Ohio, Apr. 3, 1924.
 DAY, Happy (C. H.) (hockey executive); Owen Sound, Ont., Can., June 1, 1901.
 DAY, Lorraine (Lorraine Johnson) (actress); Roosevelt, Utah, Oct. 13, 1920.
 DEAN, Dizzy (Jay Hanna Dean) (baseball player); Lucas, Ark., Jan. 16, 1911.
 DEFAUW, Désiré (orchestra conductor); Ghent, Belg., Sept. 5, 1885.
 DE GAULLE, Charles (French statesman); Lille, Fr., Nov. 22, 1890.
 DE HAVILAND, Olivia (actress); Tokyo, Jap., July 1, 1916.
 DE KOONING, William (painter); Rotterdam, Neth., 1904.
 DE LA MARE, Walter (poet); Charlton, Eng., Apr. 25, 1873.
 DELLO JOIO, Norman (composer); New York City, Jan. 24, 1913.
 DE LUE, Donald Harcourt (sculptor); Boston, Mass., Oct. 5, 1897.
 DEMARET, Jim (golfer); Houston, Tex., May 10, 1910.
 DEMILLE, Agnes (choreographer); New York City.
 DEMILLE, Cecil B. (movie director); Ashfield, Mass., Aug. 12, 1881.

DEMPSEY, Jack (William H.) (boxer); Manassa, Colo., June 24, 1894.
 DERAINE, André (painter); Chatou, Fr., June 10, 1880.
 DEREK, John (actor); Hollywood, Calif., Aug. 12, 1926.
 DE SICA, Vittorio (actor & movie director); Sora, It., July 7, 1901.
 DEUTSCH, Babette (poet & novelist); New York City, Sept. 22, 1895.
 DE VALERA, Eamon (Irish statesman); New York City, Oct. 14, 1882.
 DE VOTO, Bernard (novelist & critic); Ogden, Utah, Jan. 11, 1897.
 DEWEY, Thomas E. (U. S. statesman); Owosso, Mich., Mar. 24, 1902.
 DIAMOND, David (composer); Rochester, N. Y., July 9, 1915.
 DIETRICH, Marlene (Mary Magdalene Von Losch) (actress); Berlin, Ger., Dec. 27, 1904.
 DILLARD, Harrison (hurdler); Cleveland, Ohio, July 8, 1923.
 DI MAGGIO, Dom (baseball player); San Francisco, Calif., Feb. 12, 1918.
 DI MAGGIO, Joe (baseball player); Martinez, Calif., Nov. 25, 1914.
 DISNEY, Walt (animated cartoonist); Chicago, Ill., Dec. 5, 1901.
 DOHNÁNYI, Ernst von (composer); Pressburg, Slovakia, July 27, 1877.
 DOLIN, Anton (Patrick Healey-Kay) (dancer & choreographer); Salford, Sussex, Eng., July 27, 1904.
 DONAT, Robert (actor); Withington, Eng., Mar. 18, 1905.
 DONLEVY, Brian (actor); Portadown, Ire., Feb. 9, 1903.
 DORAIS, Gus (football coach); Chippewa Falls, Wis., July 2, 1891.
 DORATI, Antal (orchestra conductor); Budapest, Hung., Apr. 9, 1906.
 DORSEY, Tommy (band leader); Mahanoy Plane, Pa., Nov. 19, 1905.
 DOS PASSOS, John (novelist); Chicago, Ill., Jan. 14, 1896.
 DOUGLAS, Kirk (actor); Amsterdam, N. Y., Dec. 9, 1916.
 DOUGLAS, Melvyn (Melvyn Hesselberg) (actor); Macon, Ga., Apr. 5, 1901.
 DOUGLAS, Paul (actor); Philadelphia, Pa., Apr. 11, 1907.
 DOUGLAS, William O. (U. S. jurist); Maine, Minn., Oct. 16, 1898.
 DOWLING, Eddie (actor & director); Woonsocket, R. I., Dec. 9, 1894.
 DOWNEY, Morton (singer); Wallingford, Conn., Nov. 14, 1902.
 DRAKE, Alfred (singer & actor); New York City, Oct. 7, 1914.

DRAKE, Betsy (actress); Paris, Fr., Sept. 11, 1923.

DRAPER, Paul (dancer); Florence, It., Oct. 25, 1911.

DRAPER, Ruth (actress); New York City, Dec. 2, 1884.

DRAYTON, Spencer J. (horse race executive); Boston, Mass., Apr. 20, 1910.

DRESSEN, Chuck (Charles) (baseball manager); Decatur, Ill., Sept. 20, 1898.

DUDLEY, Bill (football player); Bluefield, Va., Dec. 24, 1921.

DUDLEY, Ed (golfer); Brunswick, Ga., Feb. 10, 1902.

DUFFY, Edmund (cartoonist); Jersey City, N. J., Mar. 1, 1899.

DUFY, Raoul (painter); Le Havre, Fr., June 3, 1877.

DULLES, John Foster (U. S. statesman); Washington, D. C., Feb. 25, 1888.

DU MAURIER, Daphne (novelist); London, Eng., May 13, 1907.

DUNCAN, Todd (singer); Danville, Ky., Feb. 12, 1903.

DUNHAM, Katherine (dancer); Chicago, Ill.

DUNNE, Irene (actress); Louisville, Ky., Dec. 20, 1904.

DUNNOCK, Mildred (actress); Baltimore.

DURANTE, Jimmy (comedian); New York City, Feb. 10, 1893.

DURBIN, Deanna (Edna) (actress); Winnipeg, Can., Dec. 4, 1922.

DUROCHER, Leo (baseball manager); West Springfield, Mass., July 27, 1906.

DYKES, Jimmie (baseball manager); Philadelphia, Pa., Nov. 10, 1896.

E

EASTMAN, Max (social writer); Canandaigua, N. Y., Jan. 4, 1883.

ECKSTINE, Billy (singer); Pittsburgh, Pa., July 8, 1914.

EDDY, Nelson (baritone); Providence, R. I., June 29, 1901.

EDMAN, Irwin (philosopher); New York City, Nov. 28, 1896.

EDMONDS, Walter (novelist); Boonville, N. Y., July 15, 1903.

EDWARDS, Joan (actress); New York City, July 15, 1920.

EDWARDS, Turk (Albert G.) (football player); Clarkston, Wash., Sept. 28, 1907.

EINSTEIN, Albert (physicist); Ulm, Ger., Mar. 14, 1879.

EISENHOWER, Dwight D. (retired U. S. general); Denison, Tex., Oct. 14, 1890.

ELDRIDGE, Florence (Florence McKech-nie) (actress); Brooklyn, N. Y., Sept. 5, 1901.

ELIOT, Thomas Stearns (poet); St. Louis, Mo., Sept. 26, 1888.

ELIZABETH II (Queen of England); London, Eng., Apr. 21, 1926.

ELLING, Emil Von (track & field coach); New York City, Mar. 30, 1883.

ELLINGTON, Duke (Edward) (band leader); Washington, D. C., Apr. 29, 1899.

ELLIOTT, Bill (actor); Pattonsburg, Mo.

ELMAN, Misha (violinist); Stalnoye, Rus., Jan. 20, 1881.

EMERSON, Faye (actress); Elizabeth, La., July 8, 1917.

ENESCO, Georges (composer); Dorohoi, Rum., Aug. 19, 1881.

EPSTEIN, Jacob (sculptor); New York City, Nov. 10, 1880.

EVANS, Maurice (actor); Dorchester, Eng., June 3, 1901.

EVELYN, Judith (actress); Seneca, S. Dak., Mar. 20, 1913.

F

FADIMAN, Clifton (literary critic); New York City, May 15, 1904.

FAIRBANKS, Douglas, Jr., (actor); New York City, Dec. 9, 1909.

FALKENBURG, Jinx (Eugenia) (actress); Barcelona, Sp., Jan. 21, 1919.

FAROUK I (former King of Egypt); Cairo, Egy., Feb. 11, 1920.

FARRAR, Geraldine (soprano); Melrose, Mass., Feb. 28, 1882.

FARRELL, Eileen (soprano); Willimantic, Conn., 1920.

FARRELL, James T. (novelist); Chicago, Ill., Feb. 27, 1904.

FAST, Howard (novelist); New York City, Nov. 11, 1914.

FAULKNER, William (novelist); New Albany, Miss., Sept. 25, 1897.

FAY, Frank (actor); San Francisco, Calif., Nov. 17, 1897.

FAYE, Alice (Alice Leppert) (actress); New York City, May 5, 1915.

FEININGER, Lyonel (painter); New York City, July 17, 1871.

FELLER, Bobby (baseball player); Van Meter, Iowa, Nov. 3, 1918.

FERBER, Edna (novelist); Kalamazoo, Mich., Aug. 15, 1887.

FERMI, Enrico (physicist); Rome, It., Sept. 29, 1901.

FERRER, Jose (actor); Puerto Rico, 1909.

FERRIER, Jim (golfer); Manly, Australia, Feb. 24, 1915.

FERRIER, Kathleen (contralto); Higher Walton, Lancs., Eng., Apr. 22, 1912.

FERRIS, Dan (athletic executive); Pawling, N. Y., July 7, 1899.

FEUCHTWANGER, Lion (novelist); Munich, Ger., July 7, 1884.

FIEDLER, Arthur (orchestra conductor); Boston, Mass., Dec. 17, 1894.

FIELD, Betty (actress); Boston, Mass., Feb. 8, 1918.

FIELDS, Gracie (actress); Rochdale, Eng., Jan. 9, 1898.

FIRKUSNY, Rudolf (pianist); Napajedda, Czech., Feb. 11, 1912.

FISCHER, Edwin (pianist); Basel, Switz., Oct. 6, 1886.

FISHER, Dorothy Canfield (novelist); Lawrence, Kans., Feb. 17, 1879.

FISHER, Ham (Hammond) (cartoonist); Wilkes-Barre, Pa.

FISHER, Vardis (novelist); Annis, Idaho, Mar. 31, 1895.

FITZGERALD, Barry (William J. Shields) (actor); Dublin, Ire., Mar. 1888.

FITZGERALD, Ella (singer); Newport News, Va., Apr. 25, 1918.

FITZGERALD, Geraldine (actress); Dublin, Ire., Nov. 24, 1914.

FITZSIMMONS, Sunny Jim (horse trainer); Sheepshead Bay, N. Y., July 23, 1874.

FLAGSTAD, Kirsten (soprano); Hamar, Nor., July 12, 1895.

FLAM, Herbert (tennis player); Brooklyn, N. Y., Oct. 17, 1928.

FLEMING, Sir Alexander (bacteriologist); Lochfield, Eng., 1881.

FLYNN, Errol (actor); Hobart, Tasmania, June 20, 1909.

FOCH, Nina (actress); Leyden, Neth., Apr. 20, 1924.

FONDA, Henry (actor); Grand Island, Nebr., May 16, 1905.

FONTAINE, Joan (actress); Tokyo, Jap., Oct. 22, 1917.

FONTANNE, Lynn (actress); London, Eng., 1887.

FORTEYN, Margot (Margaret Hookham) (dancer); Reigate, Surrey, Eng., May 18, 1919.

FORD, Glenn (Gwyllyn Ford) (actor); Quebec, Can., May 1, 19??.

FORD, John (movie director); Cape Elizabeth, Maine, Feb. 1, 1895.

FORSTER, Edward M. (novelist); England, 1879.

FOSS, Lukas (composer); Berlin, Ger., Aug. 15, 1922.

FOSTER, Preston (actor); Ocean City, N. J., Aug. 24, 1902.

FOWLER, Gene (biographer); Denver, Colo., 1890.

FOY, Eddie, Jr., (actor & dancer); New Rochelle, N. Y., Feb. 4, 1905.

FRANCAIX, Jean (composer); Le Mans, Fr., May 23, 1912.

FRANCESCATI, Zino (violinist); Marseille, Fr., Aug. 9, 1905.

FRANCIS, Kay (Katherine Gibbs) (actress); Oklahoma City, Okla., Jan. 13, 1905.

FRANCO, Francisco (Spanish statesman); El Ferrol, Sp., Dec. 4, 1892.

FRANK, Waldo (novelist); Long Branch, N. J., Aug. 25, 1889.

FRANKEN, Rose (dramatist & novelist); Gainesville, Tex., 1898.

FRANKFURTER, Felix (U. S. jurist); Vienna, Aus., Nov. 15, 1882.

FRASER, James Earle (sculptor); Winona, Minn., Nov. 4, 1876.

FRASER, Laura Gardin (sculptor); Chicago, Ill., Sept. 14, 1889.

FREDERICK IX (King of Denmark); nr. Copenhagen, Den., Mar. 11, 1899.

FREEMAN, Douglas S. (historian); Lynchburg, Va., May 16, 1886.

FRICK, Ford C. (baseball executive); Wawaka, Ind., Dec. 19, 1894.

FRIML, Rudolf (composer); Prague, Czech., Dec. 7, 1884.

FRISCH, Frank F. (baseball player); New York City, Sept. 9, 1898.

FROMAN, Jane (singer); St. Louis, Mo., Nov. 10, 1911.

FROST, Robert (poet); San Francisco, Calif., Mar. 26, 1875.

FRY, Christopher (dramatist); Bristol, Eng., Dec. 18, 1907.

FUCHS, Jim (shotputter); Chicago, Ill., Dec. 6, 1927.

FURTWÄGLER, Wilhelm (orchestra conductor); Berlin, Ger., Jan. 25, 1886.

G

GABIN, Jean (actor); Paris, Fr., May 17, 1904.

GABLE, Clark (actor); Cadiz, Ohio, Feb. 1, 1901.

GABOR, Eva (actress); Budapest, Hung.

GABOR, Zsa Zsa (Sari) (actress); Budapest, Hung.

GALLICO, Paul (author); New York City, July 26, 1897.

GALLI-CURCI, Amelita (soprano); Milan, It., Nov. 18, 1839.

GANNETT, Lewis (literary critic); Rochester, N. Y., Oct. 3, 1891.

GANZ, Rudolph (conductor); Zürich, Switz., Feb. 24, 1877.

GARBO, Greta (Greta Gustafsson) (actress); Stockholm, Swed., Sept. 18, 1905.

GARBOUSOVA, Raya (solist); Tiflis, Rus., Sept. 25, 1909.

- GARDEN, Mary (soprano); Aberdeen, Scot., Feb. 20, 1877.
- GARDINER, Reginald (actor); Wimbledon, Eng., Feb. 27, 1903.
- GARDNER, Ava (actress); Smithfield, N. C.
- GARDNER, Ed (Edward Poggenberg) (actor); Astoria, N. Y., June 29, 1905.
- GARDNER, Erle Stanley (novelist); Malden, Mass., July 17, 1889.
- GARGAN, William (actor); Brooklyn, N. Y., July 17, 1905.
- GARLAND, Judy (Frances Gumm) (actress); Grand Rapids, Minn., June 10, 1922.
- GARROWAY, Dave (comedian); Schenectady, N. Y., July 13, 1913.
- GARSON, Greer (actress); County Down, Ire.
- GASPERI, Alcide de (Italian statesman); Pieve Tesino, Aus.-Hung., Apr. 3, 1881.
- GAVER, John M. (horse trainer); Mt. Airy, Md., Oct. 29, 1900.
- GAVILAN, Kid (Gerardo González) (boxer); Camagüey, Cuba, Jan. 6, 1926.
- GAXTON, William (Arturo Caxiola) (actor); San Francisco, Calif., Dec. 2, 1893.
- GEDDES, Barbara Bel (actress); New York City, Oct. 31, 1922.
- GEORGE, Gladys (Gladys Clare) (actress); Patton, Maine, Sept. 13, 1904.
- GEORGE, Grace (actress); New York City, Dec. 25, 1880.
- GERHARDT, Elena (soprano); Leipzig, Ger., Nov. 11, 1883.
- GERSHWIN, Ira (lyricist); New York City, Dec. 6, 1896.
- GIANNINI, Dusolina (soprano); Philadelphia, Pa., Dec. 19, 1904.
- GIELGUD, John (actor); London, Eng., Apr. 14, 1904.
- GIESEKING, Walter (pianist); Lyon, Fr., Nov. 5, 1895.
- GIGLI, Beniamino (tenor); Rencanati, It., Mar. 20, 1890.
- GILES, Warren (baseball executive); Tiskilwa, Ill., May 28, 1896.
- GISH, Dorothy (actress); Massillon, Ohio, Mar. 11, 1898.
- GISH, Lillian (actress); Springfield, Ohio, Oct. 14, 1896.
- GLEASON, Jackie (actor); Brooklyn, N. Y., Feb. 26, 1916.
- GLEASON, James (actor); New York City, May 23, 1886.
- GLIERE, Reinhold (composer); Kiev, Rus., Jan. 11, 1875.
- GLISSON, Gordon (jockey); Winnsboro, S. C., Oct. 31, 1930.
- GODDARD, Paulette (actress); Great Neck, N. Y., June 3, 1911.
- GODFREY, Arthur (radio broadcaster); New York City, Aug. 31, 1903.
- GOLDBERG, Rube (Reuben) (cartoonist); San Francisco, Calif., July 4, 1883.
- GOLDEN, John (play producer); New York City, June 27, 1874.
- GOLDING, Louis (novelist); Manchester, Eng., Nov. 19, 1895.
- GOLDMAN, Edwin Franko (composer & conductor); Louisville, Ky., Jan. 1, 1878.
- GOLDWYN, Samuel (Samuel Goldfish) (movie producer); Warsaw, Pol., 1882.
- GOLSCHMANN, Vladimir (orchestra conductor); Paris, Fr., Dec. 16, 1893.
- GONZALES, Pancho (Richard) (tennis player); Los Angeles, Calif., May 9, 1928.
- GOODMAN, Benny (clarinetist); Chicago, Ill., May 30, 1909.
- GOOSSENS, Eugene (orchestra conductor); London, Eng., May 26, 1893.
- GOOSSENS, Leon (obolst); London, Eng., 1896.
- GORDON, Max (play producer); New York City, 1892.
- GORDON, Ruth (actress); Wollaston, Mass., Oct. 30, 1896.
- GOSDEN, Freeman F. *See* Amos.
- GOTTWALD, Klement (Czech. statesman); Dédice, Moravia, Nov. 23, 1896.
- GOULD, Chester (cartoonist); Pawnee, Okla., 1900.
- GOULD, Morton (composer); Richmond Hill, N. Y., Dec. 10, 1913.
- GRABLE, Betty (actress); St. Louis, Mo., Dec. 18, 1916.
- GRAHAM, Martha (choreographer); Pittsburgh, Pa.
- GRAHAM, Otto (football player); Waukegan, Ill., Dec. 6, 1921.
- GRAINGER, Percy (pianist); Melbourne, Austr., July 8, 1882.
- GRANGE, Red (Harold) (football player); Wheaton, Ill., June 13, 1904.
- GRANGER, Farley (actor); San Jose, Calif., July 1, 1925.
- GRANGER, Stewart (James Stewart) (actor); May 6, 1913.
- GRANT, Cary (Archibald A. Leach) (actor); Bristol, Eng., Jan. 18, 1904.
- GRAVES, Robert (poet & novelist); London, Eng., July 26, 1895.
- GRAY, Harold (cartoonist); Kankakee, Ill., Jan. 20, 1894.
- GRAYSON, Kathryn (Zelma Hedrick) (actress); Winston-Salem, N. C.
- GRAZIANO, Rocky (Rocco Barbella) (boxer); New York City, June 7, 1922.
- GREEN, Julian (novelist); Paris, Fr., Sept. 6, 1900.

- GREEN, Paul (dramatist); Lillington, N. O., Mar. 17, 1894.
- GREEN, William (labor leader); Coshoc-ton, Ohio, Mar. 3, 1873.
- GREENBERG, Hank (baseball player); New York City, Jan. 1, 1911.
- GREENE, Graham (novelist); Berkhamstead, Eng., Oct. 2, 1904.
- GREENSTREET, Sydney (actor); Sand-wich, Eng., Dec. 27, 1879.
- GREGORY, Horace (poet); Milwaukee, Wis., Apr. 10, 1898.
- GRETCHANINOV, Alexander (composer); Moscow, Rus., Oct. 25, 1864.
- GRIFFITH, Clark C. (baseball executive); Clear Creek, Mo., Nov. 20, 1869.
- GROFE, Ferde (composer); New York City, Mar. 27, 1892.
- GROMYKO, Andrei A. (Soviet statesman); Starye Gromyki, Rus., July 5, 1909.
- GROPIUS, Walter (architect); Berlin, Ger., May 18, 1883.
- GROPPER, William (painter); New York City, Dec. 3, 1897.
- GROSZ, George (painter); Berlin, Ger., July 26, 1893.
- GROVE, Lefty (Robert M.) (baseball player); Lonaconing, Md., Mar. 6, 1900.
- GRUENBERG, Louis (composer); Litovsk, Rus., Aug. 3, 1884.
- GUEST, Edgar (poet); Birmingham, Eng., Aug. 20, 1881.
- GUINNESS, Alec (actor); Marylebone, London, Eng., Apr. 2, 1914.
- GUITRY, Sacha (Alexandre) (movie direc-tor); St. Petersburg, Rus., Feb. 21, 1885.
- GUNTHER, John (journalist & author); Chicago, Ill., Aug. 30, 1901.
- GUSTAVUS VI (King of Sweden); Stock-holm, Swed., Nov. 11, 1882.
- GUTHRIE, Alfred B., Jr. (novelist); Bed-ford, Ind., Jan. 13, 1901.
- GWENN, Edmund (actor); London, Eng., Sept. 26, 1877.
- H
- HAAKON VII (King of Norway); Den-mark, Aug. 3, 1872.
- HACKETT, Francis (critic & novelist); Kilkenny, Ire., Jan. 21, 1883.
- HAGEN, Uta (actress); Gottingen, Ger., June 12, 1919.
- HAGEN, Walter (golfer); Rochester, N. Y., Dec. 21, 1892.
- HAILE SELASSIE I (Emperor of Ethiopia); Ethiopia, July 17, 1891.
- HALAS, George (football coach); Chicago, Ill., Feb. 2, 1895.
- HALEY, Jack (actor); Boston, Mass., Aug. 10, 1902.
- HAMMERSTEIN, Oscar, II (librettist); New York City, July 12, 1895.
- HAMMETT, Dashiell (novelist); St. Marys Co., Md., May 27, 1894.
- HAMPDEN, Walter (Walter Hampden Dougherty) (actor); Brooklyn, N. Y., June 30, 1879.
- HANDY, William C. (blues composer); Florence, Ala., Nov. 16, 1873.
- HANSON, Howard (composer); Wahoo, Nebr., Oct. 28, 1896.
- HARDWICKE, Sir Cedric (actor); Lye, Eng., Feb. 19, 1893.
- HARRIDGE, Will (baseball executive); Chicago, Ill., Oct. 16, 1886.
- HARRIMAN, W. Averell (U. S. statesman); Nov. 15, 1891.
- HARRIS, Bucky (Stanley R.) (baseball manager); Port Jervis, N. Y., Nov. 8, 1896.
- HARRIS, Julie (actress); Grosse Pointe, Mich., Dec. 2, 1925.
- HARRIS, Phil (band leader); Linton, Ind., June 24, 1906.
- HARRIS, Roy (composer); Lincoln Co., Okla., Feb. 12, 1898.
- HARRISON, Guy Fraser (orchestra con-ductor); Guildford, Eng., Nov. 6, 1894.
- HARRISON, Rex (actor); Huyton, Eng., Mar. 5, 1908.
- HART, Moss (dramatist); New York City, Oct. 24, 1904.
- HASELTINE, Herbert (sculptor); Rome, It., Apr. 10, 1877.
- HASSO, Signe (Signe Larsson) (actress); Stockholm, Swed.
- HATLO, Jimmy (cartoonist); Providence, R. I., Sept. 1, 1898.
- HAVOC, June (June Hovick) (actress); Seattle, Wash.
- HAYES, Alfred (novelist); London, 1911.
- HAYES, Helen (Helen Brown) (actress); Washington, D. C., Oct. 10, 1900.
- HAYES, Roland (tenor); Curryville, Ga., June 3, 1887.
- HAYMES, Dick (singer); Tarrytown, N. Y.
- HAYWARD, Louis (actor); Johannesburg, So. Af., Mar. 19, 1909.
- HAYWARD, Susan (Edythe Marrener) (ac-tress); Brooklyn, N. Y., Jan. 30, 1918.
- HAYWORTH, Rita (Margarita Cansino) (actress); New York City, Oct. 17, 1918.
- HECHT, Ben (novelist & dramatist); New York City, Feb. 28, 1894.
- HEFFELFINGER, Pudge (W. W.) (football player); Minneapolis, Minn., Dec. 20, 1867.
- HEFLIN, Van (actor); Walters, Okla., Dec. 13, 1910.

- HELFETZ, Jascha (violinist); Vilna, Rus., Feb. 2, 1901.
- HEIN, Mel (football player); Redding, Calif., Aug. 22, 1909.
- HELLMAN, Lillian (dramatist); New Orleans, La., June 20, 1905.
- HELMES, Hermann (chess writer); Brooklyn, N. Y., Jan. 5, 1870.
- HEMINGWAY, Ernest (novelist); Oak Park, Ill., July 21, 1898.
- HENDERSON, Skitch (pianist); Birmingham, Eng., Jan. 27, 1918.
- HENDL, Walter (orchestra conductor); West New York, N. J., Jan. 12, 1917.
- HENIE, Sonja (skater); Oslo, Nor., Apr. 8, 1913.
- HENREID, Paul (actor); Trieste, It., Jan. 10, 1908.
- HEPBURN, Katharine (actress); Hartford, Conn., 1909.
- HERMAN, Woody (band leader); Milwaukee, Wis., May 16, 1913.
- HERSEY, John R. (novelist); Tientsin, China, June 17, 1914.
- HERSHEY, Lewis B. (U. S. major general); Steuben Co., Ind., Sept. 12, 1893.
- HERSHOLT, Jean (actor); Copenhagen, Den., July 12, 1886.
- HESSE, Myra (pianist); London, Eng., Feb. 25, 1890.
- HESSE, Hermann (novelist); Calw, Ger., July 2, 1877.
- HEYDLER, John A. (baseball executive); La Fargeville, N. Y., July 10, 1869.
- HICKMAN, Herman (football coach); Johnson City, Tenn., Oct. 1, 1912.
- HILDEGARDE (Hildegard Loretta Sell) (entertainer); Adell, Wis., Feb. 1, 1906.
- HILLER, Wendy (actress); Branhall, Eng., Aug. 15, 1912.
- HILLIARD, Harriet (Peggy Lou Snyder) (actress & singer); Des Moines, Iowa.
- HILLYER, Robert S. (poet); East Orange, N. J., June 3, 1895.
- HILTON, James (novelist); Leigh, Eng., Sept. 9, 1900.
- HINDEMITH, Paul (composer); Hanau, Ger., Nov. 16, 1895.
- HIROHITO (Emperor of Japan); Japan, Apr. 29, 1901.
- HIRSCH, Max (horse trainer); Fredericksburg, Tex., July 12, 1880.
- HITCHCOCK, Alfred J. (movie director); England, Aug. 13, 1899.
- HOBSON, Laura Z. (Laura K. Zametkin) (novelist); New York City.
- HOFMANN, Josef (pianist); Cracow, Pol., Jan. 20, 1876.
- HOGAN, Ben (golfer); Dublin, Tex., Aug. 13, 1912.
- HOLDEN, William (actor); O'Fallon, Ill., Apr. 17, 1918.
- HOLLIDAY, Billie (singer); Baltimore, Md., 1919(?)
- HOLLIDAY, Judy (actress); New York City, June 21, 1923.
- HOLM, Celeste (actress & singer); New York City, Apr. 29, 1919.
- HOLT, Tim (actor); Beverly Hills, Calif., Feb. 5, 1918.
- HOMOLKA, Oscar (actor); Vienna, Aus., 1901.
- HONEGGER, Arthur (composer); Le Havre, Fr., Mar. 10, 1892.
- HOOK, Sidney (philosopher); New York City, Dec. 20, 1902.
- HOOTON, Ernest A. (anthropologist); Clemansville, Wis., Nov. 20, 1887.
- HOOVER, Herbert C. (U. S. statesman); West Branch, Iowa, Aug. 10, 1874.
- HOOVER, J. Edgar (FBI director); Washington, D. C., Jan. 1, 1895.
- HOPE, Bob (comedian); London, Eng., May 29, 1903.
- HOPKINS, Miriam (actress); Bainbridge, Ga., Oct. 18, 1902.
- HOPPE, Willie (billiards player); Cornwall, N. Y., Oct. 11, 1887.
- HOPPER, Edward (painter); Nyack, N. Y., July 22, 1882.
- HORNE, Lena (singer); Brooklyn, N. Y., 1918.
- HORNEY, Karen (psychiatrist); Hamburg, Ger., Sept. 16, 1885.
- HORNSBY, Rogers (baseball manager); Winters, Tex., Apr. 27, 1896.
- HOROWITZ, Vladimir (pianist); Kiev, Rus., Oct. 1, 1904.
- HOUSMAN, Laurence (dramatist & novelist); Bromsgrove, Eng., July 18, 1865.
- HUBBELL, Carl (baseball player); Carthage, Mo., June 22, 1903.
- HUGHES, Langston (poet); Joplin, Mo., Feb. 1, 1902.
- HULL, Henry (actor); Louisville, Ky., Oct. 3, 1890.
- HULL, Josephine (actress); Newtonville, Mass., Jan. 3, 1886.
- HUMPHREY, Doris (dancer); Oak Park, Ill., Oct. 17, 1895.
- HUNT, Marsha (actress); Chicago, Ill., Oct. 17, 1917.
- HUNTER, Ian (actor); Cape Town, So. Af., June 13, 1900.
- HUNTER, Kim (Janet Cole) (actress); Detroit, Mich., Nov. 12, 1922.
- HUSSEY, Ruth (actress); Providence, R. I.
- HUSTON, John (movie director); Nevada, Mo., Aug. 5, 1906.

- HUTSON, Don (football player); Pine Bluff, Ark., Jan. 31, 1913.
- HUTTON, Betty (Betty Thornberg) (singer); Battle Creek, Mich., Feb. 26, 1921.
- HUXLEY, Aldous (novelist); Godalming, Eng., July 26, 1894.
- HUXLEY, Julian S. (biologist); England, June 22, 1887.

I

- IBERT, Jacques (composer); Paris, Fr., Aug. 15, 1890.
- IBN SA'UD (King of Saudi Arabia); Riyadh, Arab., c.1880.
- IGLEHART, Stewart (polo player); Feb. 22, 1910.
- IRVIN, Dick (hockey executive); Hamilton, Ont., Can., July 19, 1892.
- ISBELL, Cecil (football player); Houston, Tex., July 11, 1915.
- ISHERWOOD, Christopher (novelist); Disley, Cheshire, Eng., Aug. 26, 1904.
- ISTOMEN, Eugene (pianist); New York City, Nov. 26, 1925.
- ITURBI, José (pianist); Valencia, Sp., Nov. 28, 1895.
- IVES, Burl (folksinger); Hunt, Ill., June 14, 1909.
- IVES, Charles (composer); Danbury, Conn., Oct. 20, 1874.

J

- JACKSON, Charles (novelist); Summit, N. J., Apr. 6, 1903.
- JACKSON, Robert H. (U. S. jurist); Spring Creek, Pa., Feb. 13, 1892.
- JACOBS, Hirsch (horse trainer); New York City, Apr. 8, 1904.
- JAFFE, Sam (actor); New York City, Mar. 8, 1898.
- JAGEL, Frederick (tenor); Brooklyn, N. Y., June 10, 1897.
- JAGGER, Dean (actor); Lima, Ohio, Nov. 7, 1903.
- JAMES, Harry (trumpeter); Albany, Ga., Mar. 15, 1916.
- JAMESON, Margaret Storm (novelist); Whitby, Eng., 1897.
- JANIS, Elsie (Elsie Bierbower) (actress); Columbus, Ohio, Mar. 16, 1889.
- JANSSEN, Herbert (baritone); Cologne, Ger.
- JANSSEN, Werner (orchestra conductor); New York City, June 1, 1900.
- JEBB, Sir Gladwyn (British statesman); England, Apr. 25, 1900.
- JEFFERS, Robinson (poet); Pittsburgh, Pa., Jan. 10, 1887.
- JEFFRIES, James J. (boxer); Carroll, Ohio, Apr. 15, 1875.

- JEPSON, Helen (soprano); Titusville, Pa., Nov. 25, 1907.
- JERITZA, Maria (soprano); Brünn, Aus., Oct. 6, 1887.
- JESSEL, George (comedian); New York City, Apr. 3, 1898.
- JESSUP, Philip C. (U. S. statesman); New York City, Jan. 5, 1897.
- JOHN, Augustus (painter); Tenby, Wales, Jan. 4, 1879.
- JOHNSON, Celia (actress); Richmond, Eng., Dec. 18, 1808.
- JOHNSON, Chick (Harold) (comedian); Chicago, Ill., Mar. 5, 1895.
- JOHNSON, Hall (choral director); Athens, Ga., Mar. 12, 1888.
- JOHNSON, Josephine Winslow (novelist); Kirkwood, Mo., June 20, 1910.
- JOHNSON, Van (actor); Newport, R. I., Aug. 20, 1916.
- JOLIOT-CURIE, Frédéric (physicist); Paris, Fr., Mar. 19, 1900.
- JOLIOT-CURIE, Irène (physicist); France, Sept. 12, 1897.
- JONES, Ben A. (horse trainer); Parnell, Mo., Dec. 31, 1882.
- JONES, Bobby (golfer); Atlanta, Ga., Mar. 17, 1902.
- JONES, James (novelist); Robinson, Ill., Nov. 6, 1921.
- JONES, Jennifer (Phyllis Isley) (actress); Tulsa, Okla., Mar. 2, 1919.
- JONES, Jimmy (H. A.) (horse trainer); Parnell, Mo., Nov. 24, 1906.
- JONES, Robert Edmond (stage designer); Milton, N. H., Dec. 12, 1887.
- JORDAN, James. *See* McGee.
- JORDAN, Marian. *See* McGee.
- JORY, Victor (actor); Dawson, Can., Nov. 23, 1902.
- JOSEPHSON, Matthew (critic & biographer); Brooklyn, N. Y., Feb. 15, 1899.
- JOSLYN, Allyn (actor); Milford, Pa., July 21, 1905.
- JOURDAN, Louis (actor); Marseille, Fr., June 18, 1921.
- JULIANA (Queen of Netherlands); The Hague, Neth., Apr. 30, 1909.
- JUNG, Carl G. (psychiatrist); Basel, Switz., July 26, 1875.

K

- KABALEVSKY, Dmitri (composer); Petograd, Rus., Dec. 30, 1904.
- KALTENBORN, Hans V. (radio commentator); Milwaukee, Wis., July, 9, 1878.
- KANIN, Garson (dramatist & director); Rochester, N. Y., Nov. 24, 1912.
- KANTOR, MacKinlay (novelist); Webster City, Iowa, Feb. 4, 1904.

- KANTOR, Morris (painter); Russia, Apr. 15, 1896.
- KAPELL, William (pianist); New York City, Sept. 20, 1922.
- KARLOFF, Boris (Charles E. Pratt) (actor); Dulwich, Eng., Nov. 23, 1887.
- KATIMS, Milton (violinist); Brooklyn, N. Y., June 24, 1909.
- KAUFMAN, George S. (dramatist); Pittsburgh, Pa., Nov. 16, 1889.
- KAYE, Danny (comedian); Brooklyn, N. Y., Jan. 18, 1913.
- KAYE, Sammy (band leader); Cleveland, Ohio, Mar. 13, 1910.
- KAZAN, Elia (movie & stage director); Istanbul, Turk., Sept. 7, 1909.
- KAZIN, Alfred (literary critic); Brooklyn, N. Y., June 5, 1915.
- KEATON, Buster (comedian); Pickway, Kans., Oct. 4, 1896.
- KEEL, Howard (singer & actor); Gillespie, Ill.
- KEFAUFER, Estes (U. S. legislator); nr. Madisonville, Tenn., July 26, 1903.
- KELLAND, Clarence Budington (novelist); Portland, Mich., July 11, 1881.
- KELLY, Emmett (clown); Sedan, Kans., 1898.
- KELLY, Gene (actor); Pittsburgh, Pa., Aug. 23, 1912.
- KELLY, Paul (actor); Brooklyn, N. Y., Aug. 8, 1899.
- KELLY, Walt (cartoonist); Philadelphia, Pa., 1914.
- KENNEDY, Arthur (actor); Worcester, Mass., Feb. 17, 1914.
- KENNEDY, Margaret (novelist); London, Eng., 1896.
- KENNY, "Sister" Elizabeth (nurse); Warialdo, Austr., Sept. 20, 1886.
- KENT, Rockwell (painter); Tarrytown Heights, N. Y., June 21, 1882.
- KERR, Deborah (actress); Helensburgh, Scot., Sept. 30, 1921.
- KETTERING, Charles F. (engineer); nr. Loudonville, Ohio, Aug. 29, 1876.
- KEYES, Frances Parkinson (novelist); Univ. of Va., July 21, 1885.
- KHACHATURIAN, Aram (composer); Tiflis, Rus., June 6, 1903.
- KIEPURA, Jan (tenor); Sosnowiec, Pol., May 16, 1902.
- KIERAN, John (editor); New York City, Aug. 2, 1892.
- KILGALLAN, Dorothy (columnist); Chicago, Ill., July 3, 1913.
- KILPATRICK, John Reed (sports executive); New York City, June 15, 1889.
- KINER, Ralph (baseball player); Santa Rita, N. Mex., Oct. 27, 1922.
- KING, Dennis (actor); Coventry, Eng., Nov. 2, 1897.
- KING, Henry (movie director); Christianburg, Va., Jan. 24, 1896.
- KING, Wayne (band leader); Savannah, Ill., Feb. 18, 1901.
- KINGMAN, Russell B. (tennis executive); East Orange, N. J., Dec. 17, 1884.
- KINGSLEY, Sidney (Sidney Kirschner) (dramatist); New York City, Oct. 18, 1906.
- KINSEY, Alfred C. (zoologist & sexologist); Hoboken, N. J., June 23, 1894.
- KIPHUTH, Robert J. H. (swimming coach); Tonowanda, N. Y., Nov. 17, 1890.
- KIPNIS, Alexander (basso); Ukraine, Feb. 1, 1896.
- KIRK, Lisa (singer); Charleroi, Pa.
- KIRKPATRICK, Ralph (harpsichordist); Leominster, Mass., June 10, 1911.
- KIRSTEN, Dorothy (soprano); Montclair, N. J., July 6, 1919.
- KLEBER, Erich (orchestra conductor); Vienna, Aus., Aug. 5, 1890.
- KLEMPERER, Otto (orchestra conductor); Breslau, Ger., 1885.
- KNOX, Alexander (actor); Strathroy, Can., Jan. 16, 1907.
- KODÁLY, Zoltán (composer); Kecskemét, Hung., Dec. 16, 1882.
- KOESTLER, Arthur (novelist); Budapest, Hung., Sept. 5, 1905.
- KOKOSCHKA, Oskar (painter); Pöchlarn, Aus., Mar. 1, 1886.
- KOMROFF, Manuel (novelist); New York City, Sept. 7, 1890.
- KORDA, Sir Alexander (movie producer); Turkeve, Hung., Sept. 16, 1893.
- KORJUS, Miliza (soprano); Warsaw, Pol., Aug. 18, 1909.
- KORNGOLD, Erich (composer); Brünn, Aus., May 29, 1897.
- KOSTELANETZ, Andre (orchestra conductor); Petrograd, Rus., Dec. 22, 1901.
- KRAMER, John A. (tennis player); Las Vegas, Nev., Aug. 1, 1921.
- KRAMER, Stanley E. (movie producer); New York City, Sept. 29, 1913.
- KRAUSS, Clemens (orchestra conductor); Vienna, Aus., Mar. 31, 1893.
- KREISLER, Fritz (violinist); Vienna, Aus., Feb. 2, 1875.
- KŘENEK, Ernst (composer); Vienna, Aus., Aug. 23, 1900.
- KREYMBORG, Alfred (poet); New York City, Dec. 10, 1883.
- KROCK, Arthur (journalist); Nov. 16, 1886.
- KROLL, Leon (painter); New York City, Dec. 6, 1884.

- KRUEGER, Karl** (orchestra conductor); Atchison, Kans., Jan. 19, 1894.
KRUGER, Otto (actor); Toledo, Ohio, Sept. 6, 1885.
KRUPA, Gene (drummer); Chicago, Ill., Jan. 15, 1909.
KUBELIK, Rafael (orchestra conductor); Bychory, Czech., June 29, 1914.
KULLMAN, Charles (tenor); New Haven, Conn., Jan. 13, 1903.
KUNIYOSHI, Yasuo (painter); Okayama, Jap., Sept. 1, 1893.
KURENKO, Maria (soprano); Moscow, Rus., 1899.
KURTZ, Efrem (orchestra conductor); Petrograd, Rus., Nov. 7, 1900.
KYSER, Kay (band leader); Rocky Mount, N. C., June 18, 1905.
- L
- LADD, Alan** (actor); Hot Springs, Ark., Sept. 3, 1913.
LA FARGE, Christopher (poet & novelist); New York City, Dec. 10, 1897.
LAGERKVIST, Pär (novelist); Växjö, Småland, Swed., May 23, 1891.
LAHR, Bert (Irving Lahrheim) (comedian); New York City, Aug. 13, 1895.
LAKE, Veronica (Constance Keane) (actress); Lake Placid, N. Y., Nov. 14, 1919.
LAMARR, Hedy (actress); Vienna, Aus.
LAMBEAU, Curly (E. L.) (football coach); Green Bay, Wis., Apr. 9, 1898.
LA MOTTA, Jake (Jacob) (boxer); New York City, July 10, 1922.
LAMOUR, Dorothy (actress); New Orleans, La., Dec. 10, 1914.
LANCASTER, Burt (actor); New York City, Nov. 2, 1913.
LANCHESTER, Elsa (Elsa Sullivan) (actress); London, Eng., Oct. 28, 1902.
LANDOWSKA, Wanda (harpisichordist); Warsaw, Pol., July 5, 1877.
LANG, Fritz (movie director); Vienna, Aus., Dec. 5, 1890.
LANGE, Hans (orchestra conductor); Constantinople, Turk., Feb. 17, 1884.
LANGFORD, Frances (singer); Lakeland, Fla., Apr. 4, 1913.
LANGFORD, Sam (boxer); Weymouth, No. Ire., Feb. 12, 1880.
LANGMUIR, Irving (chemist); Brooklyn, N. Y., Jan. 31, 1881.
LANZA, Mario (Alfredo Arnold Cocozza) (tenor); Philadelphia, Pa., Jan. 31, 1921.
LARSEN, Arthur (tennis player); San Leandro, Calif., Apr. 17, 1925.
LATHROP, Gertrude Katherine (sculptor); Albany, N. Y., Dec. 24, 1896.
LAUGHTON, Charles (actor); Scarborough, Eng., July 1, 1899.
- LAURI-VOLPI, Giacomo** (tenor); Rome, It., Dec. 11, 1894.
LAWFORD, Peter (actor); London, Eng., Sept. 7, 1923.
LAWRENCE, Marjorie (soprano); Deans Marsh, Austr., Feb. 17, 1909.
LAWSON, John Howard (dramatist); New York City, Sept. 25, 1895.
LAYDEN, Elmer F. (football player); Dayton, Iowa, May 4, 1903.
LEAF, Munro (children's writer); Hamilton, Md., Dec. 4, 1905.
LEAHY, Frank (football coach); O'Neill, Nebr., Aug. 21, 1908.
LE COURBUSIER (Charles-Édouard Jeanneret) (architect); La Chaux De Fonds, Switz., Oct. 6, 1887.
LEE, Gypsy Rose (Rose Hovic) (entertainer); Seattle, Wash., Feb. 9, 1914.
LEE, Peggy (singer); Jamestown, N. Dak., 1921.
LE GALLIENNE, Eva (actress & director); London, Eng., Jan. 11, 1899.
LÉGER, Fernand (painter); near Liseaux, Fr., Feb. 1881.
LEHMANN, Lotte (soprano); Perleberg, Ger., July 2, 1885.
LEHMANN, Rosamond (novelist); London, Eng., 1903.
LEIGH, Vivien (Vivian Hartley) (actress); Darjeeling, India, Nov. 5, 1913.
LEINSDORF, Erich (orchestra conductor); Vienna, Aus., Feb. 4, 1912.
LERNER, Max (social writer); Minsk, Rus., Dec. 20, 1902.
LEROY, Mervyn (movie producer & director); San Francisco, Calif., Oct. 15, 1900.
LESLIE, Joan (Joan Brodell) (actress); Detroit, Mich., Jan. 26, 1925.
LEV, Ray (pianist); Rostov on Don, Rus., May 8, 1912.
LEVANT, Oscar (pianist); Pittsburgh, Pa., Dec. 27, 1906.
LEVENE, Sam (actor); New York City, 1907.
LEVI, Carlo (novelist); Turin, It., 1902.
LEWIS, Jerry (comedian); Newark, N. J., Mar. 16, 1926.
LEWIS, Joe E. (comedian); New York City.
LEWIS, John L. (labor leader); Lucas, Iowa, Feb. 12, 1880.
LEWISOHN, Ludwig (novelist & critic); Berlin, Ger., May 30, 1883.
LIE, Trygve (U. N. Secretary General); Oslo, Nor., July 16, 1896.
LILLIE, Beatrice (actress); Toronto, Can., May 29, 1898.
LILLIENTHAL, David E. (U. S. statesman); Morton, Ill., July 8, 1899.

- LIN** Yutang (philosopher); Changchow, China, Oct. 10, 1895.
- LINDSAY**, Howard (dramatist); Waterford, N. Y., Mar. 29, 1889.
- LIPCHITZ**, Jacques (sculptor); Druskielniki, Lith., Aug. 22, 1891.
- LIPPMAHN**, Walter (social writer); New York City, Sept. 23, 1889.
- LIPTON**, Martha (singer); New York City, Apr. 6, 1915.
- LIST**, Emanuel (basso); Vienna, Aus., Mar. 22, 1891.
- LIST**, Eugene (pianist); Calif., 1921.
- LITTLE**, Lou (football coach); Leominster, Mass., Dec. 6, 1893.
- LITTLE**, W. Lawson, Jr. (golfer); Newport, R. I., June 23, 1910.
- LIVESY**, Roger (actor); Barry, Wales, June 25, 1906.
- LLEWELLYN**, Richard (novelist); St. David's, Wales.
- LLOYD**, Harold (comedian); Burchard, Nebr., Apr. 20, 1894.
- LOCKE**, Bobby (Arthur D.) (golfer); Germiston, Transvaal, So. Af., Nov. 20, 1917.
- LOCKHART**, Gene (actor); London, Can., July 25, 1892.
- LOCKWOOD**, Margaret (actress); Karachi, India, 1916.
- LOESSER**, Frank (song writer); New York City, June 29, 1910.
- LOGAN**, Joshua. (director & dramatist); Texarkana, Tex., Oct. 5, 1908.
- LOMBARDO**, Guy (band leader); London, Can., June 19, 1902.
- LONGDEN**, Johnny (jockey); Wakefield, Eng., Feb. 14, 1910.
- LOOS**, Anita (novelist); Sisson, Calif., Apr. 26, 1893.
- LOPEZ**, Al (baseball manager); Tampa, Fla., Aug. 20, 1908.
- LOPEZ**, Vincent (band leader); Brooklyn, N. Y., Dec. 10, 1898.
- LORRE**, Peter (actor); Rosenberg, Hung., June 26, 1904.
- LOUIS**, Joe (Joe Louis Barrow) (boxer); Lexington, Ala., May 13, 1914.
- LOW**, David (cartoonist); Dunedin, N. Z., Apr. 7, 1891.
- LOWELL**, Robert (Traill Spence, Jr.) (poet); Boston, Mass., Mar. 1, 1917.
- LOY**, Myrna (Myrna Williams) (actress); near Helena, Mont., Aug. 2, 1905.
- LUCKMAN**, Sid (football player); Brooklyn, N. Y., Nov. 21, 1916.
- LUGOSI**, Bela (Bela Lugosi Blasko) (actor); Lugo, Hung., Oct. 20, 1888.
- LUKAS**, Paul (actor); Budapest, Hung., May 28, 1905.
- LUND**, John (actor); Rochester, N. Y., Feb. 6, 1914.
- LUNT**, Alfred (actor); Milwaukee, Wis., 1893.
- LUPINO**, Ida (actress); London, Eng., Feb. 4, 1918.
- LYNN**, Diana (Dolly Loehr) (actress); Los Angeles, Calif., Oct. 7, 1926.
- LYTELL**, Bert (actor & director); New York City, 1885.

M

- MACARTHUR**, Charles (dramatist); Scranton, Pa., Nov. 5, 1895.
- MACARTHUR**, Douglas (U. S. general); Little Rock Barracks, Ark., Jan. 26, 1880.
- MCCAMBRIDGE**, Mercedes (actress); Joliet, Ill., Mar. 17, 1918.
- MCCAREY**, Leo (movie director); Los Angeles, Calif., Oct. 3, 1898.
- MCCARTHY**, Joe (baseball manager); Philadelphia, Pa., Apr. 21, 1887.
- MCCREA**, Joel (actor); Los Angeles, Calif., Nov. 5, 1906.
- MCCULLERS**, Carson (novelist & dramatist); Columbus, Ga., Feb. 19, 1917.
- MCDONALD**, Harl (composer); nr. Boulder, Colo., July 27, 1899.
- MACDONALD**, Jeanette (soprano); Philadelphia, Pa., June 18, 1907.
- MCDOWALL**, Roddy (actor); London, Eng., Sept. 17, 1928.
- McGEE**, Fibber (James Jordan) (actor); Peoria, Ill., Nov. 16, 1896.
- McGEE**, Molly (Marian Jordan) (actress); Peoria, Ill., Apr. 15, 1898.
- MacGRATH**, Leueen (actress & dramatist); London, Eng., July 3, 1914.
- McGUIRE**, Dorothy (actress); Omaha, Nebr., June 14, 1919.
- MACK**, Connie (baseball executive); East Brookfield, Mass., Dec. 23, 1862.
- McKECHNIE**, William B. (baseball manager); Wilkensburg, Pa., Aug. 7, 1877.
- McLAGLEN**, Victor (actor); Tunbridge Wells, Eng., Dec. 11, 1886.
- McLAUGHRY**, Tuss (DeOrmond) (football coach); Chicago, Ill., May 19, 1893.
- MacLEISH**, Archibald (poet); Glencoe, Ill., May 7, 1892.
- McMANUS**, George (cartoonist); St. Louis, Mo., Jan. 23, 1884.
- MacMILLAN**, Sir Ernest (orchestra conductor); Mimico, Can., Aug. 18, 1893.
- MacMURRAY**, Fred (actor); Kankakee, Ill., Aug. 30, 1908.
- MORAE**, Gordon (singer); East Orange, N. J., Mar. 12, 1921.
- McSPADEN**, Jug (Harold) (golfer); Rose-dale, Kans., July 21, 1908.

- MAGLIE, Sal (baseball player); Niagara Falls, N. Y., Apr. 26, 1917.
- MAGNANI, Anna (actress); Alexandria, Egy., 1910.
- MAILER, Norman (novelist); Long Branch, N. J., Jan. 31, 1923.
- MALRAUX, André (novelist); Paris, Fr., Nov. 3, 1895.
- MANGRUM, Lloyd (golfer); Dallas, Tex., Aug. 1, 1914.
- MANKIEWICZ, Joseph L. (movie director); Wilkes-Barre, Pa., Feb. 11, 1909.
- MANN, Thomas (novelist); Lübeck, Ger., June 6, 1875.
- MANSHIP, Paul (sculptor); St. Paul, Minn., Dec. 25, 1885.
- MAO Tse-tung (Chinese statesman); Shao Shan, China, 1893.
- MARBLE, Alice I. (tennis player); Plumas Co., Calif., Sept. 28, 1913.
- MARCH, Fredric (Frederick Bickel) (actor); Racine, Wis., Aug. 31, 1897.
- MARCIANO, Rocky (boxer); Brockton, Mass., Sept. 1, 1924.
- MARGO (Maria Boldao y Castilla) (actress); Mexico City, Mex., May 10, 1918.
- MARIN, John (watercolorist); Rutherford, N. J., Dec. 23, 1872.
- MARION, Marty (baseball manager); Richburg, S. C., Dec. 1, 1917.
- MARITAIN, Jacques (philosopher); Paris, Fr., Nov. 18, 1882.
- MARKOVA, Alicia (dancer); London, Eng., Dec. 1, 1910.
- MARQUAND, John P. (novelist); Wilmington, Del., Nov. 10, 1893.
- MARSH, Ngalo (novelist); Christchurch, N. Z., Apr. 23, 1899.
- MARSH, Reginald (painter); Paris, Fr., Mar. 14, 1898.
- MARSHALL, George C. (U. S. general); Uniontown, Pa., Dec. 31, 1880.
- MARSHALL, Herbert (actor); London, Eng., May 23, 1890.
- MARTIN, Dean (comedian); Steubenville, Ohio, June 7, 1917.
- MARTIN, Joseph W., Jr. (U. S. legislator); No. Attleboro, Mass., Nov. 3, 1884.
- MARTIN, Mary (actress); Weatherford, Tex., Dec. 1, 1914.
- MARTIN, Tony (actor & singer); San Francisco, Calif., Dec. 25, 1914.
- MARTIN DU GARD, Roger (novelist); Neuilly-sur-Seine, Fr., 1881.
- MARTINELLI, Giovanni (tenor); Montagnana, It., Oct. 22, 1885.
- MARTINU, Bohuslav (composer); Policka, Czech., Dec. 8, 1890.
- MARX, Chico (Leonard) (comedian); New York City, Mar. 22, 1891.
- MARX, Groucho (Julius) (comedian); New York City, Oct. 2, 1895.
- MARX, Harpo (Arthur) (comedian); New York City, Nov. 23, 1893.
- MASEFIELD, John (poet); Ledbury, Eng., June 1, 1878.
- MASON, Daniel Gregory (composer); Brookline, Mass., Nov. 20, 1873.
- MASON, F. van Wyck (novelist); Boston, Mass., Nov. 11, 1901.
- MASON, James (actor); Huddersfield, Eng., May 15, 1909.
- MASSEY, Ilona (Ilona Hajmassy) (actress); Hungary, 1910.
- MASSEY, Raymond (actor); Toronto, Can., Aug. 30, 1896.
- MASSINE, Léonide (choreographer); Moscow, Rus., Aug. 9, 1896.
- MATHIAS, Bob (athlete); Tulare, Calif., Nov. 17, 1930.
- MATISSE, Henri (painter); Cateau, Fr., Dec. 31, 1869.
- MATTA (Matta Echaurren) (painter); Chile, 1912.
- MATTSON, Henry (painter); Göteborg, Swed., Aug. 7, 1887.
- MATURE, Victor (actor); Louisville, Ky., Jan. 29, 1916.
- MATZENAUER, Margaret (contralto); Temesvar, Hung., June 1, 1881.
- MAUGHAM, William Somerset (novelist); Paris, Fr., Jan. 25, 1874.
- MAULDIN, William H. (cartoonist); Mountain Park, N. Mex., Oct. 29, 1921.
- MAUROIS, André (Émile Herzog) (novelist); Elbeuf, Fr., July 26, 1885.
- MAXIM, Joey (Giuseppe Antonio Berardinelli) (boxer); Cleveland, Ohio, Mar. 28, 1922.
- MAYER, Louis B. (movie producer); Minsk, Rus., July 4, 1885.
- MAYNOR, Dorothy (soprano); Norfolk, Va., Sept. 3, 1910.
- MAYO, Virginia (Virginia Jones) (actress); St. Louis, Mo., Nov. 30, 1920.
- MEHRTENS, Warren (jockey); Brooklyn, N. Y., Nov. 5, 1920.
- MEITNER, Lise (physicist); Vienna, Aus., Nov. 7, 1878.
- MELCHIOR, Lauritz (tenor); Copenhagen, Den., Mar. 20, 1890.
- MELTON, James (tenor); Moultrie, Ga., Jan. 2, 1904.
- MENCKEN, Henry L. (editor & author); Baltimore, Md., Sept. 12, 1880.
- MENJOU, Adolphe (actor); Pittsburgh, Pa., Feb. 18, 1890.
- MENOTTI, Gian-Carlo (composer); Cadelgiano, It., July 7, 1911.
- MENUHIN, Yehudi (violinist); New York City, Apr. 22, 1916.

- MERCER, Johnny (singer & song writer); Savannah, Ga., Nov. 18, 1909.
- MEREDITH, Burgess (actor); Cleveland, Ohio, Nov. 16, 1908.
- MERMAN, Ethel (Ethel Zimmerman) (actress & singer); Astoria, N. Y., Jan. 16, 1909.
- MERRILL, Robert (baritone); Brooklyn, N. Y., June 4, 1919.
- MERRIMAN, Nan (mezzo-soprano); Pittsburgh, Pa., Apr. 28, 1920.
- MERTON, Thomas (poet & religious writer); Prades, Fr., Jan. 31, 1915.
- MESSIAEN, Olivier (composer); Avignon, Fr., Dec. 10, 1908.
- MESTROVIĆ, Ivan (sculptor); Vrpolje, Yugos., Aug. 15, 1883.
- MEYER, Bill (baseball manager); Knoxville, Tenn., Jan. 14, 1893.
- MICHENER, James A. (novelist); New York City, Feb. 3, 1907.
- MIDDLECOFF, Cary (golfer); Halls, Tenn., Jan. 6, 1921.
- MIELZINER, Jo (stage designer); Paris, Fr., Mar. 19, 1901.
- MILANOV, Zinka (soprano); Zagreb, Yugos., May 17, 1908.
- MILHAUD, Darius (composer); Aix-en-Provence, Fr., Sept. 4, 1892.
- MILLAND, Ray (Jack Millane) (actor); Neath, Wales, Jan. 3, 1907.
- MILLER, Arthur (dramatist); New York City, 1915.
- MILLES, Carl (sculptor); Uppsala, Swed., June 23, 1875.
- MILLIKAN, Robert A. (physicist); Morrison, Ill., Mar. 23, 1868.
- MILLS, John (actor); Suffolk, Eng., Feb. 22, 1908.
- MILNE, Alan A. (novelist & dramatist); London, Eng., Jan. 18, 1882.
- MILSTEIN, Nathan (violinist); Odessa, Rus., Dec. 31, 1904.
- MINTON, Sherman (U. S. jurist); Georgetown, Ind., Oct. 20, 1890.
- MIRANDA, Carmen (Maria do Carmo Miranda da Cunha) (singer); Marco Canavezes, Port., 1915.
- MIRÓ, Joan (painter); Barcelona, Sp., Apr. 21, 1893.
- MISTRAL, Gabriela (Lucila Godoy Alcayaga) (poet); Vicuña, Chile, Apr. 7, 1839.
- MITCHELL, Thomas (actor); Elizabeth, N. J., July 11, 1895.
- MITCHUM, Robert (actor); Rising Sun, Del.
- MITFORD, Nancy (novelist); 1904.
- MITROPOULOS, Dimitri (orchestra conductor); Athens, Gr., Feb. 18, 1896.
- MOISEVITCH, Benno (pianist); Odessa, Rus., Feb. 22, 1890.
- MOLOTOV, Vyacheslav M. (V. M. Skryabin) (Soviet statesman); Kukarka, Rus., Mar. 9, 1890.
- MONROE, Vaughn (band leader); Akron, Ohio, Oct. 7, 1912.
- MONSARRAT, Nicholas (novelist); Liverpool, Eng., Mar. 22, 1910.
- MONTEUX, Pierre (orchestra conductor); Paris, Fr., Apr. 4, 1875.
- MONTGOMERY, Robert (Henry, Jr.) (actor); Beacon, N. Y., May 21, 1904.
- MOORE, Bruce (sculptor); Bern, Kans., Aug. 5, 1905.
- MOORE, Douglas Stuart (composer); Cutchogue, N. Y., Aug. 10, 1893.
- MOORE, Henry (sculptor); Castleford, Eng., July 30, 1898.
- MOORE, Marianne (poet); St. Louis, Mo., Nov. 15, 1887.
- MOORE, Victor (actor); Hammononton, N. J., Feb. 24, 1876.
- MOOREHEAD, Agnes (actress); Clinton, Mass., Dec. 6, 1906.
- MORGAN, Charles (novelist); Kent, Eng., Jan. 22, 1894.
- MORGAN, Dennis (Stanley Morner) (actor); Prentice, Wis., Dec. 10, 1920.
- MORGAN, Henry (Henry von Ost, Jr.) (comedian); New York City, Mar. 31, 1915.
- MORGAN, Michele (Simone Roussel) (actress); Paris, Fr., Feb. 29, 1920.
- MORGAN, Ralph (actor); New York City, July 6, 1888.
- MORINI, Erica (violinist); Vienna, Aus., Jan. 5, 1910.
- MORISON, Patricia (actress); New York City, 1919.
- MORLEY, Christopher (novelist); Haverford, Pa., May 5, 1890.
- MORLEY, Robert (actor); Wiltshire, Eng., May 26, 1908.
- MOSES, Grandma (Anna Mary) (painter); Greenwich, N. Y., Sept. 7, 1860.
- MOSSADEGH, Mohammed (Iranian statesman); Teheran, Persia, 1880(?).
- MOTHERWELL, Robert (painter); Aberdeen, Wash., Jan. 24, 1915.
- MOTLEY, Willard (novelist); Chicago, Ill., July 14, 1912.
- MUENCH, Charles (orchestra conductor); Strasbourg, Ger., Sept. 1891.
- MULLOY, Gardner (tennis player); Miami, Fla., Nov. 22, 1914.
- MUMFORD, Lewis (author); Flushing, N. Y., Oct. 19, 1895.
- MUNI, Paul (Muni Welsenfreund) (actor); Lemberg, Aus., Sept. 22, 1836.

MUNSEL, Patrice (soprano); Spokane, Wash., May 14, 1925.

MURDOCH, Murray (hockey coach); Lucknow, Ont., Can., May 19, 1904.

MURPHY, George (actor); New Haven, Conn., July 4, 1904.

MURRAY, Arthur (dancing teacher); New York City, Apr. 4, 1895.

MURRAY, Philip (labor leader); Blantyre, Scot., May 25, 1886.

MURROW, Edward R. (radio commentator); Greensboro, N. C.

MUSIAL, Stan (baseball player); Donora, Pa., Nov. 21, 1920.

N

NAGLER, Fred (painter); Springfield, Mass., Feb. 27, 1891.

NAGURSKI, Bronko (football player); International Falls, Minn., Nov. 3, 1908.

NAISH, J. Carrol (actor); New York City, Jan. 21, 1900.

NASH, Ogden (poet); Rye, N. Y., Aug. 19, 1902.

NATHAN, George Jean (theater critic); Ft. Wayne, Ind., Feb. 14, 1882.

NATHAN, Robert (novelist); New York City, Jan. 2, 1894.

NATWICK, Mildred (actress); Baltimore, Md., June 19, 1908.

NEAGLE, Anna (Marjorie Robertson) (actress); nr. London, Eng., Oct. 20, 1904.

NEGRI, Pola (Appollonia Chalupec) (actress); Lipno, Pol., 1899.

NEHRU, Jawaharlal (Indian statesman); Allahabad, India, Nov. 14, 1889.

NELSON, Byron (golfer); Ft. Worth, Tex., Feb. 4, 1912.

NELSON, Ozzie (Oswald) (band leader); Jersey City, N. J., 1906.

NESBITT, Cathleen (actress); Liscard, Cheshire, Eng., Nov. 24, 1889.

NEVERS, Ernie (football player); Willow River, Minn., June 11, 1903.

NEVINS, Allan (historian); Camp Point, Ill., May 20, 1890.

NEWTON, Robert (actor); Shaftesbury, Dorset, Eng., June 1, 1905.

NEXÖ, Martin Andersen (novelist); Copenhagen, Den., June 26, 1869.

NEYLAND, Robert (football coach); Greenville, Tex., Sept. 17, 1892.

NICHOLS, Dudley (stage producer & director); Wapakoneta, Ohio, Apr. 6, 1895.

NIVEN, David (actor); Scotland.

NIXON, Richard M. (U. S. legislator); Yorba Linda, Calif., Jan. 9, 1913.

NOBEL, Ray (band leader); Brighton, Eng., Dec. 17, 1908.

NOGUCHI, Isamu (sculptor); Los Angeles, Calif., Nov. 7, 1904.

NOLAN, Lloyd (actor); San Francisco, Calif.

NORDEN, Carl L. (inventor); Semerang, Java, Apr. 23, 1880.

NORRIS, Kathleen (novelist); San Francisco, Calif., July 16, 1880.

NOVAES, Gulomar (pianist); São João de Boa Vista, Braz., Feb. 28, 1895.

NOVOTNA, Jarmila (soprano); Prague, Czech., Sept. 23, 1911.

NOYES, Alfred (poet); Wolverhampton, Eng., Sept. 16, 1880.

NUGENT, Elliott (actor & director); Dover, Ohio, Sept. 20, 1899.

O

OAKIE, Jack (Lewis Offield) (actor); Sedalia, Mo., Nov. 12, 1903.

OBERON, Merle (Merle O'Brien Thompson) (actress); Tasmania, Feb. 19, 1911.

O'BRIEN, Margaret (actress); Los Angeles, Calif., Jan. 15, 1937.

O'BRIEN, Pat (actor); Milwaukee, Wis., Nov. 11, 1899.

O'CASEY, Sean (dramatist); Dublin, Ire., 1881.

O'CONNOR, Donald (actor); Chicago, Ill., Aug. 28, 1925.

ODETS, Clifford (dramatist); Philadelphia, Pa., July 18, 1906.

O'FAOLAIN, Seán (story writer); Cork, Ire., Feb. 22, 1900.

O'FLAHERTY, Liam (novelist); Aran Is., Ire., 1897.

O'HARA, John (novelist); Pottsville, Pa., Jan. 31, 1905.

O'HARA, Maureen (Maureen Fitzsimmons) (actress); Dublin, Ire., Aug. 17, 1920.

O'KEEFE, Georgia (painter); Sun Prairie, Wis., Nov. 15, 1887.

OLIVER, Porky (Ed) (golfer); Wilmington, Del., Sept. 6, 1916.

OLIVIER, Sir Laurence (actor); Dorking, Eng., May 22, 1907.

OLSEN, Ole (John) (comedian); Wabash, Ind., Nov. 6, 1892.

O'NEILL, Eugene (dramatist); New York City, Oct. 16, 1888.

O'NEILL, Steve (baseball manager); Milnooka, Pa., July 6, 1891.

OPPENHEIMER, J. Robert (physicist); New York City, Apr. 22, 1904.

ORCUTT, Maureen (golfer); New York City, Apr. 1, 1907.

ORMANDY, Eugene (orchestra conductor); Budapest, Hung., Nov. 18, 1899.

ORTEGA y GASSET, José (social writer); Madrid, Sp., May 9, 1883.

ORTIZ, Manuel (boxer); Corona, Calif., July 2, 1916.

O'SULLIVAN, Maureen (actress); Boyle, Ire., May 17, 1911.
 OTT, Mel (Melvin T.) (baseball player); Gretna, La., Mar. 2, 1909.
 OWEN, Reginald (actor); Weathampstead, Eng., Aug. 5, 1887.
 OWEN, Steve (football coach); Cleo Springs, Okla., Apr. 21, 1898.
 OWENS, Jesse (sprinter); Decatur, Ala., Sept. 12, 1913.

P

PALMER, Lilli (actress); Posen, Germany, May 27, 1917.
 PARKER, Dorothy (poet & story writer); West End, N. J., Aug. 22, 1893.
 PARKER, Jean (Mae Green) (actress); Deer Lodge, Mont.
 PARKER, Raymond K. (football coach); Kemp, Tex., Dec. 16, 1913.
 PARKS, Larry (actor); Olathe, Kana.
 PASTERNAK, Joseph (movie producer); Simleul-Silvaniel, Rum., Sept. 19, 1901.
 PATON, Alan (novelist); Pietermaritzburg, So. Af., Jan. 11, 1903.
 PATRICK, Lester (hockey executive); Drummondville, Que., Can., Dec. 31, 1883.
 PATRICK, Lynn (hockey coach); Victoria, B. C., Can., Feb. 3, 1912.
 PAUL I (King of Greece); Athens, Gr., Dec. 14, 1901.
 PAUL, Elliot (novelist); Malden, Mass., Feb. 13, 1891.
 PAXINOI, Katina (actress); Piraeus, Greece.
 PAYNE, John (actor); Roanoke, Va.
 PEARSON, Drew (columnist); Evanston, Ill., Dec. 13, 1897.
 PEARSON, Hesketh (author); Hawford, Worcs., Eng., Feb. 20, 1887.
 PEATTIE, Donald Culross (nature writer); Chicago, Ill., June 21, 1898.
 PECK, Gregory (actor); La Jolla, Calif., Apr. 5, 1916.
 PEERCE, Jan (Jacob Pincus Perelmuth) (tenor); New York City, 1904.
 PEGLER, Westbrook (columnist); Minneapolis, Minn., Aug. 2, 1894.
 PEIRCE, Waldo (painter); Bangor, Maine, Dec. 17, 1884.
 PELLETIER, Wilfred (orchestra conductor); Montreal, Can., June 30, 1896.
 PEP, Willie (William Papaleo) (boxer); Middletown, Conn., Nov. 20, 1922.
 PERELMAN, Sidney J. (humorist); Brooklyn, N. Y., Feb. 1, 1904.
 PERÓN, Juan D. (Argentine statesman); nr. Lobos, Arg., Oct. 8, 1895.
 PERSINGER, Louis (violinist); Rochester, Ill., Feb. 11, 1887.
 PETRI, Egon (pianist); Hanover, Ger., Mar. 23, 1881.
 PHELAN, Jimmy (football coach); Sacramento, Calif., Dec. 5, 1893.
 PHILIPP, Isadore (pianist); Budapest, Hung., Sept. 2, 1863.
 PIAF, Edith (singer); Paris, Fr.
 PIASTRO, Mishel (violinist & conductor); Kertz, Rus., June 1892.
 PIATIGORSKY, Gregor (cellist); Ekaterinoslav, Rus., Apr. 17, 1903.
 PICASSO, Pablo (painter); Málaga, Sp., Oct. 25, 1881.
 PICCARD, Auguste (physicist); Basel, Switz., Jan. 28, 1884.
 PICCARD, Jean Félix (aeronautics engineer); Basel, Switz., Jan. 28, 1884.
 PICKFORD, Mary (Gladys Mary Smith) (actress); Toronto, Can., Apr. 8, 1893.
 PIDGEON, Walter (actor); East St. John, Can., Sept. 23, 1898.
 PINZA, Ezio (basso); Rome, It., May 18, 1892.
 PISTON, Walter (composer); Rockland, Maine, Jan. 20, 1894.
 PIUS XII (Eugenio Pacelli) (Pope); Rome, It., Mar. 2, 1876.
 POLLACK, Jackson (painter); Cody, Wyo., Feb. 7, 1912.
 PONS, Lily (soprano); Cannes, Fr., Apr. 13, 1904.
 PONSELLE, Rosa (soprano); Meriden, Conn., Jan. 22, 1897.
 PORTER, Cole (song writer); Peru, Ind., June 9, 1893.
 PORTER, Katherine Anne (story writer); Indian Creek, Tex., May 15, 1894.
 PORTINARI, Candido (painter); Brazil, 1903.
 POULENC, Francis (composer); Paris, Fr., Jan. 7, 1899.
 POUND, Ezra (poet); Halley, Idaho, Oct. 30, 1885.
 POWELL, Dick (actor); Mt. View, Ark., Nov. 14, 1904.
 POWELL, Jane (Suzanne Burce) (actress); Portland, Oreg., Apr. 1, ??
 POWELL, William (actor); Pittsburgh, Pa., July 29, 1892.
 POWER, Tyrone (actor); Cincinnati, Ohio, May 5, 1914.
 POWERS, Marie (contralto); Mt. Carmel, Pa.
 PRATT, Fletcher (historian); Buffalo, N. Y., Apr. 25, 1897.
 PREMINGER, Otto (movie producer & director); Vienna, Aus., Dec. 5, 1906.
 PRICE, George (cartoonist); Coytesville, N. J., June 9, 1901.
 PRICE, Vincent (actor); St. Louis, Mo., May 27, 1911.

- PRIESTLEY, John B. (novelist & dramatist); Bradford, Eng., Sept. 13, 1894.
 PRIMOSE, William (violinist); Glasgow, Scot., Aug. 23, 1904.
 PRIMUS, Pearl (dancer); Trinidad, Nov. 29, 1921.
 PROKOFIEFF, Serge (composer); Sontsova, Rus., Apr. 23, 1891.
 PROKOSCH, Frederic (novelist); Madison, Wis., May 17, 1908.

Q

- QUINTANILLA, Luis (painter); Santander, Sp., June 13, 1895.
 QUIRINO, Elpidio (Philippine statesman); Vigan, Luzon, Phil., Nov. 16, 1890.

R

- RAFT, George (actor); New York City, Sept. 27, 1927.
 RAINER, Luise (actress); Vienna, Aus., 1912.
 RAINS, Claude (actor); London, Eng., Nov. 10, 1889.
 RAISA, Rosa (soprano); Bialystok, Pol., May 30, 1893.
 RALF, Torsten (tenor); Sweden, 1915.
 RANK, J. Arthur (movie producer); Hull, Eng., Dec. 23, 1888.
 RANSOM, John Crowe (poet); Pulaski, Tenn., Apr. 30, 1888.
 RATHBONE, Basil (actor); Johannesburg, So. Af., June 13, 1892.
 BATOFF, Gregory (movie director); Petrograd, Rus., Apr. 20, 1897.
 RATTIGAN, Terence (dramatist); London, Eng., June 10, 1911.
 RATTNER, Abraham (painter); Poughkeepsie, N. Y., July 8, 1895.
 RAWLINGS, Marjorie Kinnan (novelist); Washington, D. C., Aug. 8, 1896.
 RAY, Johnnie (singer); Roseburg, Oreg., Jan. 10, 1927.
 RAYBURN, Sam (U. S. legislator); Roane Co., Tenn., Jan. 6, 1882.
 REAGAN, Ronald (actor); Tampico, Ill.
 REDGRAVE, Michael (actor); Bristol, Eng., Mar. 20, 1908.
 REED, Donna (actress); Denison, Iowa.
 REED, Stanley F. (U. S. jurist); Mason Co., Ky., Dec. 31, 1884.
 REINER, Fritz (orchestra conductor); Budapest, Hung., Dec. 19, 1888.
 REMARQUE, Erich Maria (novelist); Osnabrück, Ger., June 22, 1898.
 RENNIE, Michael (actor); Bradford, Yorks., Eng., Aug. 25, 1909.
 RETHBERG, Elisabeth (soprano); Schwarzenberg, Ger., Dec. 22, 1894.
 REUTHER, Walter P. (labor leader); Wheeling, W. Va., Sept. 1, 1907.
 REYNOLDS, Allie (baseball player); Bethany, Okla., Feb. 10, 1919.
 RHEE, Syngman (Korean statesman); Whanghai Prov., Kor., Apr. 26, 1875.
 RICE, Elmer (Elmer Reizenstein) (dramatist); New York City, Sept. 28, 1892.
 RICE, Florence (actress); Cleveland, Ohio, Feb. 14, 1911.
 RICE, Grantland (sports writer); Murrefreesboro, Tenn., Nov. 1, 1880.
 RICHARD, Maurice (hockey player); Montreal, Que., Can., Aug. 4, 1921.
 RICHARDS, Ivor Armstrong (literary critic); Sandbach, Eng., Feb. 26, 1893.
 RICHARDS, Paul (baseball manager); Waxahachie, Tex., Nov. 21, 1908.
 RICHARDS, Vincent (tennis player); New York City, Mar. 20, 1903.
 RICHARDSON, Ralph (actor); Cheltenham, Eng., Dec. 19, 1902.
 RICHTER, Conrad (novelist); Pine Grove, Pa., Oct. 13, 1890.
 RICKEY, Branch (baseball executive); Senecaville, Ohio, Dec. 20, 1881.
 RINEHART, Mary Roberts (novelist); Pittsburgh, Pa.
 RITTER, Thelma (actress); Brooklyn, N. Y., 1905.
 RIVERA, Diego (painter); Guanajuato, Mex., Dec. 8, 1886.
 RIZZUTO, Phil (baseball player); New York City, Sept. 25, 1918.
 ROARK, Helen Wills Moody (tennis player); Centerville, Calif., Oct. 6, 1905.
 ROBBINS, Jerome (Jerome Rabinowitz) (choreographer); New York City, Oct. 11, 1918.
 ROBERTS, Kenneth (novelist); Kennebunk, Maine, Dec. 8, 1885.
 ROBESON, Paul (baritone); Princeton, N. J., Apr. 9, 1898.
 ROBINSON, Edward G. (Emmanuel Goldenberg) (actor); Bucharest, Rum., Dec. 12, 1893.
 ROBINSON, Henry Morton (novelist); Boston, Mass., Sept. 7, 1898.
 ROBINSON, Jackie (baseball player); Cairo, Ga., Jan. 31, 1919.
 ROBINSON, Ray (boxer); Detroit, Mich., May 3, 1920.
 ROBSON, Flora (actress); South Shields, Eng., Mar. 28, 1902.
 ROCHESTER, (Eddie Anderson) (comedian); Oakland, Calif., Sept. 18, 1905.
 ROCKWELL, Norman (illustrator); New York City, Feb. 3, 1894.
 RODGERS, Richard (song writer); New York City, June 28, 1902.
 RODZINSKI, Artur (orchestra conductor); Spalato, Dalmatia, Jan. 2, 1892.

- ROGERS, Ginger (Virginia McMath) (actress & dancer); Independence, Mo., July 16, 1911.
- ROGERS, Roy (Leonard Slye) (actor); Cincinnati, Ohio, Nov. 5, 1912.
- ROLFE, Red (Robert) (baseball player); Penacook, N. H., Oct. 17, 1908.
- ROMAINS, Jules (Louis Farigoule) (novelist); Saint-Julien Chapteuil, Fr., Aug. 26, 1885.
- ROMAN, Ruth (actress); Boston, Mass., Dec. 23, 1924.
- ROMANO, Umberto (painter); Italy, Feb. 26, 1905.
- ROMERO, Cesar (actor); New York City, Feb. 15, 1907.
- ROONEY, Mickey (Joe Yule, Jr.) (actor); Brooklyn, N. Y., Sept. 23, 1922.
- ROOSEVELT, Eleanor (U. S. statesman); New York City, Oct. 11, 1884.
- ROSE, Billy (Wm. S. Rosenberg) (stage producer); New York City, Sept. 6, 1899.
- ROSE, Leonard (cellist); 1918.
- ROSS, Arthur H. (hockey executive); Naughton, Ont., Can., Jan. 13, 1886.
- ROSS, Nancy Wilson (novelist); Olympia, Wash.
- ROSSELLINI, Roberto (movie director); Rome, It., May 8, 1906.
- ROUAULT, Georges (painter); Paris, Fr., May 27, 1871.
- RUBINSTEIN, Artur (pianist); Warsaw, Pol., Jan. 28, 1889.
- RUFFO, Titta (baritone); Pisa, It., June 10, 1877.
- RUGGLES, Charles (actor); Los Angeles, Calif., Feb. 8, 1892.
- RUSSELL, Bertrand (philosopher); Trelleck, Eng., May 18, 1872.
- RUSSELL, Jane (actress); Bemidji, Minn., June 21, 1921.
- RUSSELL, Rosalind (actress); Waterbury, Conn., June 4, 1912.
- RYAN, Robert (actor); Chicago, Ill., Nov. 11, 1913.
- S
- SABIN, Florence R. (anatomist); Central City, Colo., Nov. 9, 1871.
- SABLON, Jean (singer); Paris, Fr., Mar. 25, 1912.
- SACKVILLE-WEST, Victoria (poet & novelist); Sevenoaks, Eng., Mar. 9, 1892.
- SADDLER, Sandy (Joe) (boxer); Boston, Mass., June 28, 1926.
- SAIDENBERG, Daniel (orchestra conductor); Winnipeg, Can., Oct. 12, 1906.
- ST. DENIS, Ruth (Ruth Denis) (dancer); Newark, N. J., Jan. 20, 1880.
- ST. LAURENT, Louis Stephen (Canadian statesman); Compton, Que., Can., Feb. 1, 1882.
- SALAZAR, António de Oliveira (Portuguese statesman); Santa Comba, Port., 1889.
- SALINGER, J. D. (novelist); New York City, Jan. 1, 1919.
- SALZEDO, Carlos (harpist); Arachon, Fr., Apr. 6, 1885.
- SAMPLE, Paul (painter); Louisville, Ky., Sept. 14, 1896.
- SANDBURG, Carl (poet & biographer); Galesburg, Ill., Jan. 6, 1878.
- SANDE, Earl (horse trainer); Groton, S. Dak., Nov. 19, 1898.
- SANDERS, George (actor); St. Petersburg, Rus., 1906.
- SÁNDOR, György (pianist); Budapest, Hung., Sept. 21, 1912.
- SANROMÁ, Jesús María (pianist); Carolina, P. R., Nov. 7, 1902.
- SARAZEN, Gene (golfer); Harrison, N. Y., Feb. 27, 1902.
- SARGENT, Sir Malcolm (orchestra conductor); Stamford, Eng., Apr. 29, 1895.
- SAROYAN, William (story writer & dramatist); Fresno, Calif., Aug. 31, 1908.
- SARTRE, Jean-Paul (philosopher); Paris, Fr., June 21, 1905.
- SASSOON, Siegfried (poet); Matfield, Eng., Sept. 8, 1886.
- SAVITT, Dick (tennis player); Bayonne, N. J., Mar. 4, 1927.
- SAVO, Jimmie (entertainer); New York City, 1895.
- SAVOLD, Lee (boxer); Marshall, Minn., Mar. 22, 1916.
- SAYÃO, Bidú (soprano); Rio De Janeiro, Braz., May 11, 1906.
- SCHAEFER, Jake (billiards player); Chicago, Ill., Oct. 18, 1894.
- SCHARY, Dore (movie producer); Newark, N. J., Aug. 31, 1905.
- SCHILDKRAUT, Joseph (actor); Vienna, Aus., Mar. 22, 1895.
- SCHJÖTZ, Aksel (tenor); Roskilde, Den., Sept. 1, 1906.
- SCHIPA, Tito (tenor); Lecce, It., Jan. 2, 1890.
- SCHLESINGER, Arthur M., Jr. (historian); Columbus, Ohio, Oct. 15, 1917.
- SCHLESINGER, Arthur M., Sr. (historian); Xenia, Ohio, Feb. 27, 1888.
- SCHMIDT, Milt (hockey player); Kitchener, Ont., Can., Mar. 5, 1918.
- SCHNEIDER, Alexander (violinist); Vilna, Pol., Dec. 21, 1908.
- SCHORR, Friedrich (baritone); Nagyvárad, Hung., Sept. 2, 1888.
- SCHROEDER, Ted (tennis player); Newark, N. J., July 20, 1921.
- SCHULBERG, Budd (novelist); New York City, Mar. 27, 1914.

- SCHUMAN, Robert (French statesman); Luxemburg, Luxem., June 29, 1886.
- SCHUMAN, William (composer); New York City, Aug. 4, 1910.
- SCHWEITZER, Albert (organist, physician & author); Kaysersburg, Alsace, Jan. 14, 1875.
- SCOTT, Barbara Ann (skater); Ottawa, Can., May 9, 1928.
- SCOTT, Cyril (composer); Oxtou, Eng., Sept. 27, 1879.
- SCOTT, Hazel (pianist); Port of Spain, Trin., June 11, 1920.
- SCOTT, Elizabeth (actress); Scranton, Pa., Sept. 29, 1923.
- SCOTT, Martha (actress); Jamesport, Mo., Sept. 22, 1916.
- SCOTT, Randolph (actor); Orange Co., Va., Jan. 23, 1903.
- SCOTT, Raymond (band leader); Brooklyn, N. Y., Sept. 10, 1909.
- SCOTT, Zachary (actor); Austin, Tex., Feb. 24, 1914.
- SEABORG, Glenn T. (nuclear chemist); Ishpeming, Mich., Apr. 19, 1912.
- SEDGMAN, Frank (tennis player); Mont Albert, Victoria, Austr., Oct. 29, 1927.
- SEGAL, Vivienne (singer); Philadelphia, Pa., 1897.
- SEGONZAC, André Dunoyer de (painter); France, 1885.
- SEGOVIA, Andrés (guitarist); Linares, Sp., Feb. 18, 1894.
- SEGURA, Francisco (tennis player); Guayaquil, Ec., June 20, 1921.
- SEIDEL, Toscha (violinist); Odessa, Rus., Nov. 17, 1889.
- SEIXAS, E. Victor, Jr. (tennis player); Philadelphia, Pa., Aug. 30, 1923.
- SELZNICK, David O. (movie producer); Pittsburgh, Pa., May 10, 1902.
- SEPESHY, Zoltan (painter); Kassa, Hung., Nov. 24, 1898.
- SERKIN, Rudolf (pianist); Eger, Boh., Mar. 28, 1903.
- SESSIONS, Roger (composer); Brooklyn, N. Y., Dec. 28, 1896.
- SEVITZKY, Fabien (Fabien Koussevitsky) (orchestra conductor); Vyshni-Volochek, Rus., Sept. 30, 1893.
- SHAHN, Ben (painter); Kovno, Rus., 1898.
- SHAPIRO, Karl (poet); Baltimore, Md., Nov. 10, 1913.
- SHAPLEY, Harlow (astronomer); Nashville, Mo., Nov. 2, 1885.
- SHAUGHNESSY, Clark D. (football coach); St. Cloud, Minn., Mar. 6, 1892.
- SHAUGHNESSY, Frank J. (baseball executive); Albion, Ill., Apr. 8, 1885.
- SHAW, Artie (clarinetist); New York City, May 23, 1910.
- SHAW, Irwin (dramatist & novelist); New York City, Feb. 27, 1913.
- SHAW, Robert (choral director); Red Bluff, Calif., Apr. 30, 1916.
- SHAWN, Ted (Edwin) (dancer); Kansas City, Mo., Oct. 21, 1891.
- SHEARER, Moira (Moira Shearer King) (dancer); Dunfermline, Fife, Scot., Jan. 17, 1926.
- SHEARER, Norma (actress); Montreal, Can., Aug. 10, 1902.
- SHEAN, Vincent (novelist & essayist); Pana, Ill., Dec. 5, 1899.
- SHEELER, Charles (painter); Philadelphia, Pa., July 16, 1883.
- SHELLABARGER, Samuel (novelist); Washington, D. C., May 18, 1888.
- SHERIDAN, Ann (actress); Denton, Tex., Feb. 21, 1915.
- SHERIFF, Robert (dramatist); Kingston-on-Thames, Eng., June 6, 1896.
- SHERWOOD, Robert E. (dramatist); New Rochelle, N. Y., Apr. 4, 1896.
- SHIRLEY, Anne (Dawn Paris) (actress); New York City, Apr. 17, 1918.
- SHOEMAKER, Vaughn (cartoonist); Chicago, Ill., Aug. 11, 1902.
- SHOLOKHOV, Mikhail (novelist); Veshenskaya, Rus., 1905.
- SHORE, Dinah (singer); Winchester, Tenn., Mar. 1, 1917.
- SHORE, Eddie (hockey player); Ft. Qu'Appelle, Sask., Can., Nov. 26, 1902.
- SHOSTAKOVICH, Dmitri (composer); Petrograd, Rus., Sept. 26, 1906.
- SHRINER, Herb (comedian); Toledo, Ohio, May 29, 1918.
- SHULMAN, Max (humorist); St. Paul, Minn., Mar. 14, 1919.
- SIBELIUS, Jean (composer); Tavastehus, Fin., Dec. 8, 1865.
- SIDNEY, Sylvia (Sophia Koskow) (actress); New York City, Aug. 8, 1910.
- SIKORSKY, Igor I. (aircraft designer); Kiev, Rus., May 25, 1889.
- SILLANPÄÄ, Frans Eemil (novelist); Hämeenkyrö, Fin., Sept. 16, 1888.
- SILONE, Ignazio (Secondo Tranquilli) (novelist); Pescina del Marsi, It., May 1, 1900.
- SILVERS, Phil (comedian); Brooklyn, N. Y., May 11, 1912.
- SIMENON, Georges (Georges Sim) (novelist); Liéges, Belg., Feb. 13, 1903.
- SIMMS, Ginny (singer); San Antonio, Tex., May 25, 1918.
- SIMONSON, Lee (stage designer); New York City, June 28, 1888.
- SINATRA, Frank (singer); Hoboken, N. J., 1918.

- SINCLAIR, Upton (novelist); Baltimore, Md., Sept. 20, 1878.
- SINGHER, Martial (baritone); Oloron-Ste-Marie, Fr., Aug. 14, 1904.
- SIQUEIROS, David (painter); Mexico, 1894.
- SISLER, George H. (baseball player); Manchester, Ohio, Mar. 24, 1893.
- SITWELL, Edith (poet); Scarborough, Eng., 1887.
- SITWELL, Sir Osbert (poet & satirist); London, Eng., Dec. 6, 1892.
- SKELTON, Red (Richard) (comedian); Vincennes, Ind., July 18, 1913.
- SKINNER, Cornelia Otis (actress); Chicago, Ill., May 30, 1901.
- SLEEPER, Martha (actress); Lake Bluff, Ill., June 24, 1911.
- SLEZAK, Walter (actor); Vienna, Aus., May 3, 1902.
- SMALLENS, Alexander (orchestra conductor); Petrograd, Rus., Jan. 1, 1889.
- SMITH, Betty (novelist); Brooklyn, N. Y., Dec. 15, 1904.
- SMITH, H. Allen (humorist); McLeansboro, Ill., Dec. 19, 1907.
- SMITH, Kate (Kathryn) (singer); Washington, D. C., 1910.
- SMITH, Kent (actor); Smithville, Maine, Mar. 19, 1907.
- SMITH, Lillian (novelist); Jasper, Fla., 1897.
- SMYTHE, Conn (hockey executive); Toronto, Ont., Can., Feb. 1, 1895.
- SNEAD, Sam (golfer); Hot Springs, Va., May 27, 1912.
- SOKOLOFF, Vladimir (actor); Moscow, Rus., Dec. 26, 1889.
- SOLOMON (Solomon Cutner) (pianist); London, Eng., 1902.
- SOTHERN, Ann (Harriet Lake) (actress); Valley City, N. Dak., Jan. 22, 1911.
- SOWERBY, Leo (composer); Grand Rapids, Mich., May 1, 1895.
- SPAACK, Paul-Henri (Belgian statesman); Brussels, Belg., Jan. 25, 1899.
- SPALDING, Albert (violinist); Chicago, Ill., Aug. 15, 1888.
- SPARKMAN, John (U. S. legislator); Morgan Co., Ala., Dec. 20, 1899.
- SPEAKER, Tris (baseball player); Hubbard, Tex., Apr. 4, 1888.
- SPEARS, Dr. Clarence W. (football coach); De Witt, Ark., July 24, 1894.
- SPEICHER, Eugene (painter); Buffalo, N. Y., Apr. 5, 1883.
- SPENDER, Stephen (poet); nr. London, Eng., Feb. 28, 1909.
- SPEWACK, Bella (dramatist); Hungary, 1899.
- SPEWACK, Sam (dramatist); Russia, 1899.
- STAGG, A. Alonzo (football coach); West Orange, N. J., Aug. 16, 1862.
- STALIN, Joseph V. (Iosif V. Dzughashvili) (Soviet statesman); Gori, Georgia, Transcaucasia, Dec. 21, 1879.
- STALLINGS, Laurence (novelist & dramatist); Macon, Ga., Nov. 25, 1894.
- STANWYCK, Barbara (Ruby Stevens) (actress); Brooklyn, N. Y., July 16, 1907.
- STASSEN, Harold E. (U. S. politician); West St. Paul, Minn., Apr. 13, 1907.
- STEBER, Eleanor (soprano); Wheeling, W. Va., July 17, 1916.
- STEFANSSON, Vihljalmar (explorer); Arnes, Can., Nov. 3, 1879.
- STEINBECK, John (novelist); Salinas, Calif., Feb. 27, 1902.
- STENGEL, Casey (Charles D.) (baseball manager); Kansas City, Mo., July 30, 1891.
- STERN, Isaac (violinist); Kremniesz, Rus., July 21, 1920.
- STERNE, Maurice (painter & sculptor); Libau, Rus., July 13, 1878.
- STEVENS, Risë (mezzo-soprano); New York City, June 11, 1913.
- STEVENS, Wallace (poet); Reading, Pa., Oct. 2, 1879.
- STEVENSON, Adlai E. (U. S. statesman); Los Angeles, Calif., Feb. 5, 1900.
- STEWART, James (actor); Indiana, Pa., May 20, 1908.
- STICKNEY, Dorothy (actress); Dickinson, N. Dak., June 21, 1900.
- STIEDRY, Fritz (orchestra conductor); Vienna, Aus., Oct. 11, 1883.
- STIGNANI, Ebe (mezzo-soprano); Naples, It., July 10, 1907.
- STILL, William Grant (composer); Woodville, Miss., May 11, 1895.
- STOCKWELL, Dean (actor); Hollywood, Calif., Mar. 5, (?).
- STOKOWSKI, Leopold (orchestra conductor); London, Eng., Apr. 18, 1882.
- STONE, Ezra (actor & director); New Bedford, Mass., Dec. 2, 1917.
- STONE, Fred A. (actor); Valmont, Colo., Aug. 19, 1873.
- STONE, Irving (biographer); San Francisco, Calif., July 14, 1903.
- STONG, Philip (novelist); Keosauqua, Iowa, Jan. 27, 1899.
- STRANAHAN, Frank R. (golfer); Toledo, Ohio, Aug. 5, 1922.
- STRAUS, Oskar (composer); Vienna, Aus., Apr. 6, 1870.
- STRAVINSKY, Igor (composer); Oranienbaum, Rus., June 17, 1882.
- STREET, James (novelist); Lumberton, Miss., Oct. 15, 1903.

STREETER, Edward (novelist); New York City, Aug. 1, 1891.

STRIBLING, Thomas S. (novelist); Clifton, Tenn., Mar. 4, 1881.

STRONG, Ken (football player); West Haven, Conn., Apr. 21, 1906.

STRUTHER, Jan (Joyce Anstruther) (novelist); London, Eng., June 6, 1901.

STUART, Jesse (poet & novelist); W-Holow, Ky., Aug. 8, 1907.

STUHLREHER, Harry (sports executive); Massillon, Ohio, Oct. 14, 1901.

STURGES, Preston (Preston Biden) (dramatist & director); Chicago, Ill., Aug. 29, 1898.

STYDAHAR, Joe (football coach); Kaylor, Pa., Mar. 3, 1912.

SUCKOW, Ruth (novelist); Hawarden, Iowa, Aug. 6, 1892.

SUGGS, Louise (golfer); Atlanta, Ga., Sept. 7, 1923.

SULLAVAN, Margaret (actress); Norfolk, Va., May 16, 1911.

SULLIVAN, Barry (Patrick Barry) (actor); New York City, Aug. 29, 1912.

SULLIVAN, Ed (columnist); New York City, Sept. 28, 1902.

SULLIVAN, Frank (humorist); Saratoga Springs, N. Y., Sept. 22, 1892.

SVANHOLM, Set (tenor); Vasteras, Swed., Sept. 2, 1904.

SWANSON, Gloria (Josephine Swenson) (actress); Chicago, Ill., Mar. 27, 1898.

SWARTHOUT, Gladys (mezzo-soprano); Deepwater, Mo., Dec. 25, 1904.

SZELL, George (orchestra conductor); Budapest, Hung., June 7, 1897.

SZIGETI, Joseph (violinist); Budapest, Hung., Sept. 5, 1892.

T

TAFT, Robert A. (U. S. legislator); Cincinnati, Ohio, Sept. 8, 1889.

TAGLIAVINI, Ferruccio (tenor); Reggio Emilia, It., Aug. 14, 1913.

TAJO, Italo (basso); Pinerolo, It., Apr. 25, 1915.

TALBERT, Billy (tennis player); Cincinnati, Ohio, Sept. 4, 1918.

TALBURT, Harold M. (cartoonist); Toledo, Ohio, Feb. 19, 1895.

TALLCHIEF, Maria (dancer); Fairfax, Okla., Jan. 24, 1925.

TAMAYO, Rufino (painter); Oaxaca, Mex., 1899.

TANDY, Jessica (Jessica Cronyn) (actress); London, Eng., June 7, 1909.

TANGUY, Yves (painter); France, 1900.

TATE, Allen (poet); Winchester, Ky., Nov. 19, 1899.

TAYLOR, Deems (composer); New York City, Dec. 22, 1885.

TAYLOR, Elizabeth (actress); London, Eng., Feb. 27, 1932.

TAYLOR, Robert (S. Arlington Brugh) (actor); Filley, Nebr., Aug. 5, 1911.

TOHELITCHEW, Pavel (painter); nr. Moscow, Rus., Sept. 21, 1898.

TEMPLE, Shirley (actress); Santa Monica, Calif., Apr. 23, 1928.

TEMPLETON, Alec (pianist); Cardiff, Wales, July 4, 1910.

TEYTE, Maggie (soprano); Wolverhampton, Eng., Apr. 17, 1891.

THEBOM, Blanche (mezzo-soprano); Monessen, Pa., Sept. 19, 1919.

THIBAUD, Jacques (violinist); Bordeaux, Fr., Sept. 27, 1880.

THOMAS, Danny (comedian); Deerfield, Mich., Jan. 6, 1914.

THOMAS, Dylan (poet); Carmarthenshire, Wales, 1914.

THOMAS, John Charles (baritone); Meyersdale, Pa., Sept. 6, 1891.

THOMAS, Lowell (lecturer & author); Woodington, Ohio, Apr. 6, 1892.

THOMAS, Norman M. (Socialist leader); Marion, Ohio, Nov. 20, 1884.

THOMPSON, Randall (composer); New York City, Apr. 21, 1899.

THOMSON, Virgil (composer & critic); Kansas City, Mo., Nov. 25, 1896.

THORBORG, Kerstin (contralto); Venjan, Swed., May 19, 1906.

THORPE, Jim (athlete); nr. Prague, Okla., May 28, 1888.

THURBER, James (humorist); Columbus, Ohio, Dec. 8, 1894.

TIEBETT, Lawrence (baritone); Bakersfield, Calif., Nov. 16, 1896.

TIERNEY, GENE (actress); Brooklyn, N. Y., Nov. 20, 1920.

TILDEN, William T., II (tennis player); Philadelphia, Pa., Feb. 10, 1893.

TITO (Josip Brozovich or Broz) (Yugoslav statesman); Kumrovec, Croatia, May 25, 1892.

TOCH, Ernst (composer); Vienna, Aus., Dec. 7, 1887.

TODD, Ann (actress); Hartford, Ches., Eng., Jan. 24, 1910.

TONE, Franchot (actor); Niagara Falls, N. Y., Feb. 27, 1905.

TOSCANINI, Arturo (orchestra conductor); Palma, It., Mar. 25, 1867.

TOUREL, Jennie (mezzo-soprano); Montreal, Can., June 22, 1910.

TOYNBEE, Arnold J. (historian); London, Eng., Apr. 14, 1889.

TRACY, Spencer (actor); Milwaukee, Wis., Apr. 5, 1900.

TRAUBEL, Helen (soprano); St. Louis, Mo.

TRAUTMAN, George M. (baseball executive); Bucyrus, Ohio, Jan. 11, 1890.
 TRAVERS, Henry (actor); Ireland.
 TRIPIPI, Charley (football player); Pittston, Pa., Dec. 14, 1922.
 TRUEX, Ernest (actor); Kansas City, Mo., Sept. 19, 1890.
 TRUMAN, Harry S. (U. S. statesman); Lamar, Mo., May 8, 1884.
 TRUMAN, Margaret (soprano); Independence, Mo., Feb. 17, 1924.
 TUCKER, Richard (tenor); New York City, Aug. 28, 1914.
 TUCKER, Sophie (Sophie Abuza) (entertainer); Russia, 1884.
 TUDOR, Anthony (choreographer); London, Eng., Apr. 4, 1909.
 TUFTS, Sonny (actor); Boston, Mass.
 TUNNEY, Gene (James J.) (boxer); New York City, May 25, 1898.
 TURNER, Lana (Julia Jean Turner) (actress); Wallace, Idaho, Feb. 8, 1920.
 TURNESA, Joe (golfer); New York City, Jan. 31, 1901.
 TURNESA, Willie (golfer); Elmsford, N. Y., Jan. 29, 1914.

U

UNTERMEYER, Louis (poet & anthologist); New York City, Oct. 1, 1885.
 UREY, Harold C. (chemist); Walkerton, Ind., Apr. 29, 1893.
 UTRILLO, Maurice (painter); Paris, Fr., Dec. 25, 1883.

V

VALLEE, Rudy (Hubert) (actor & band leader); Island Pond, Vt., July 28, 1901.
 VAN BUREN, Steve (football player); Tela, Honduras, Dec. 20, 1920.
 VANDERBILT, Alfred G. (horse racing executive); London, Eng., Sept. 22, 1912.
 VAN DOREN, Mark (poet & critic); Hope, Ill., June 13, 1894.
 VAN DRUTEN, John (dramatist); London, Eng., June 1, 1901.
 VARE, Gienna Collett (golfer); New Haven, Conn., June 20, 1903.
 VARÈSE, Edgar (composer); Paris, Fr., Dec. 22, 1885.
 VARGAS, Getulio D. (Brazilian statesman); São Borja, Braz., Apr. 19, 1882.
 VAUGHAN WILLIAMS, Ralph (composer); Down Ampney, Eng., Oct. 12, 1872.
 VIDAL, Gore (novelist); West Point, N. Y., Oct. 3, 1925.
 VIDOR, King (movie director & producer); Galveston, Tex., Feb. 8, 1895.
 VIREECK, Peter (poet); New York City, Aug. 5, 1916.
 VILLA-LOBOS, Heitor (composer); Rio de Janeiro, Braz., Mar. 5, 1884.

VINES, H. Ellsworth, Jr. (tennis & golf player); Los Angeles, Calif., Sept. 28, 1911.
 VINSON, Frederick M. (U. S. jurist); Louisa, Ky., Jan. 22, 1890.
 VISHINSKY, Andrei Y. (Soviet statesman); Odessa, Rus., 1883.
 VLAMINCK, Maurice de (painter); Paris, Fr., Apr. 4, 1876.
 VON STROHEIM, Erich (movie director & actor); Vienna, Aus., Sept. 22, 1885.

W

WADE, Wallace (football coach); Trenton, Tenn., June 15, 1892.
 WAGNER, Hans (John P.) (baseball player); Mansfield, Pa., Feb. 24, 1874.
 WALCOTT, Jersey Joe (Arnold Cream) (boxer); Merchantville, N. J., Jan. 31, 1914.
 WALKER, Mickey (boxer); Elizabeth, N. J., July 13, 1901.
 WALKER, Nancy (Ann Myrtle Swoyer) (actress); Philadelphia, Pa.
 WALKER, Ralph Thomas (architect); Waterbury, Conn., Nov. 28, 1889.
 WALLACE, Henry A. (U. S. statesman); Adair Co., Iowa, Oct. 7, 1888.
 WALLENSTEIN, Alfred (orchestra conductor); Chicago, Ill., Oct. 7, 1898.
 WALTARI, Mika (novelist); Helsinki, Fin., Sept. 19, 1908.
 WALTER, Bruno (Bruno Walter Schlesinger) (orchestra conductor); Berlin, Ger., Sept. 17, 1876.
 WALTON, William (composer); Oldham, Eng., Mar. 29, 1902.
 WARD, Bud (Marvin H.) (golfer); Olympia, Wash., May 1, 1913.
 WARING, Fred (band leader); Tyrone, Pa., June 9, 1900.
 WARNER, Sylvia Townsend (novelist & poet); Harrow-on-the-Hill, Eng., 1893.
 WARREN, Leonard (baritone); New York City, Apr. 21, 1911.
 WARREN, Robert Penn (novelist); Guthrie, Ky., Apr. 24, 1905.
 WATERS, Ethel (actress & singer); Chester, Pa., Oct. 31, 1900.
 WAUGH, Alexander (novelist); London, Eng., July 8, 1898.
 WAUGH, Evelyn (novelist); London, 1903.
 WAYNE, David (actor); Traverse City, Mich., Jan. 30, 1914.
 WAYNE, John (Marion Michael Morrison) (actor); Winterset, Iowa, May 26, 1907.
 WEBB, Clifton (actor); Indiana, 1891.
 WEBER, Max (painter); Bialystok, Rus., Apr. 18, 1881.
 WEBSTER, Margaret (actress & director); New York City, Mar. 15, 1905.
 WEIDMAN, Charles (dancer); New York City, July 22, 1901.

- WEIZMANN, Chaim (Israeli statesman); nr. Pińsk, Rus., Nov. 27, 1874.
- WELITSCH, Ljuba (Ljuba Welitschkova) (soprano); Bozissowo, Bulg., 1913.
- WELLES, Orson (actor & director); Kenosha, Wis., May 6, 1915.
- WELTY, Eudora (novelist); Jackson, Miss., Apr. 13, 1909.
- WESCOTT, Glenway (novelist); Kewaskum, Wis., Apr. 11, 1901.
- WEST, Mae (actress); Brooklyn, N. Y., Aug. 17, 1892.
- WEST, Rebecca (Cicily Fairfield) (novelist); Edinburgh, Scot., Dec. 25, 1892.
- WHITE, Ben (harness racer); Whiteville, Ont., Can., Feb. 5, 1873.
- WHITEMAN, Paul (band leader); Denver, Colo., 1891.
- WHITNEY, C. V. (horse racing executive); New York City, Feb. 20, 1899.
- WHORF, Richard (actor); Winthrop, Mass.
- WIDENER, George D. (horse racing executive); Philadelphia, Pa., Mar. 11, 1889.
- WIDMARK, Richard (actor); Sunrise, Minn., Dec. 26, 1914.
- WILDE, Cornel (actor); New York City, Oct. 13, 1915.
- WILDER, Billy (movie director); Vienna, Aus., June 22, 1906.
- WILDER, Thornton (novelist); Madison, Wis., Apr. 17, 1897.
- WILDING, Michael (actor); Westcliff, Essex, Eng., July 23, 1912.
- WILLARD, Jess (boxer); Pottawatomie Co., Kans., Dec. 29, 1883.
- WILLIAMS, Ben Ames (novelist); Macon, Miss., Mar. 7, 1889.
- WILLIAMS, Emlyn (dramatist); Mostyn, Wales, Nov. 26, 1905.
- WILLIAMS, Esther (swimmer); Los Angeles, Calif.
- WILLIAMS, Gluyas (cartoonist); San Francisco, Calif., July 23, 1888.
- WILLIAMS, Ted (baseball player); San Diego, Calif., Oct. 30, 1918.
- WILLIAMS, Tennessee (Thomas L.) (dramatist); Columbus, Miss., Mar. 26, 1914.
- WILLIAMS, William Carlos (poet); Rutherford, N. J., Sept. 17, 1883.
- WILSON, Edmund (literary critic); Red Bank, N. J., May 8, 1895.
- WILSON, Margaret (novelist); Traer, Iowa, Jan. 16, 1882.
- WINCHELL, Paul (ventriloquist); New York City, Dec. 21, 1923.
- WINCHELL, Walter (columnist); New York City, Apr. 7, 1897.
- WINNINGER, Charles (actor); Athens, Wis., May 26, 1884.
- WINTERS, Shelley (Shirley Schrift) (actress); East St. Louis, Ill., Aug. 18, 1923.
- WOOD, Peggy (actress); Brooklyn, N. Y., Feb. 9, 1892.
- WOODWARD, William (horse racing executive); New York City, Apr. 7, 1876.
- WOOLLEY, Monte (Edgar) (actor); New York City, Aug. 17, 1888.
- WORTMAN, Denys (cartoonist); Saugerettes, N. Y., May 1, 1887.
- WOUK, Herman (novelist); New York City, May 27, 1915.
- WRIGHT, Frank Lloyd (architect); Richland Center, Wis., June 8, 1869.
- WRIGHT, Richard (novelist); nr. Natchez, Miss., Sept. 4, 1908.
- WRIGHT, Teresa (actress); New York City, Oct. 27, 1918.
- WYATT, Jane (actress); Campgaw, N. J., Aug. 12, 1912.
- WYETH, Andrew (painter); Chadds Ford, Pa., July 12, 1917.
- WYLER, William (movie director); Mulhouse, Fr., July 1, 1902.
- WYLIE, Philip (novelist); Beverly, Mass., May 12, 1902.
- WYMAN, Jane (Sarah Fulks) (actress); St. Joseph, Mo., Jan. 4, 1914.
- WYNN, Ed (Edwin Leopold) (comedian); Philadelphia, Pa., Nov. 9, 1886.
- WYNN, Keenan (actor); New York City, July 27, 1916.

Y

- YERBY, Frank (novelist); Augusta, Ga., Sept. 5, 1916.
- YOSHIDA, Shigeru (Japanese statesman); Tokyo, Jap., Sept. 22, 1878.
- YOUNG, Cy (Denton T.) (baseball player); Gilmore, Ohio, Mar. 29, 1867.
- YOUNG, Loretta (Gretchen) (actress); Salt Lake City, Utah, Jan. 6, 1913.
- YOUNG, Robert (actor); Chicago, Ill., Feb. 22, 1907.
- YOUNG, Roland (actor); London, England, Nov. 11, 1887.
- YURKA, Blanche (actress); St. Paul, Minn., June 19, 1893.

Z

- ZAHARIAS, Babe (Mildred Didrikson) (athlete); Port Arthur, Tex., June 26, 1913.
- ZANUCK, Darryl F. (movie director); Wahoo, Nebr., Sept. 5, 1902.
- ZIMBALIST, Efrem (violinist); Rostov-on-Don, Rus., Apr. 9, 1889.
- ZORACH, William (sculptor); Eurburg, Lith., Feb. 28, 1887.
- ZUKOR, Adolph (movie producer); Ricse, Hung., Jan. 7, 1873.
- ZWEIG, Arnold (novelist); Grosz-Glogau, Silesia, Nov. 10, 1887.

★ WHO WAS WHO ★

Prepared by

A. N. MARQUIS CO., *Publishers of WHO'S WHO IN AMERICA*

For Rulers of England, France, Germany and Russia, see tables on pages 397 and 398. For Presidents of the U. S., consult the index. For deaths of notable persons during 1952, see Chronology (1952) in the Index.

In many instances below, the original name or form of the name of the individual is shown in parentheses.

A

ADAMS, Charles Francis (1807-1886), American diplomat.
 ADAMS, Henry Brooks (1838-1918), American historian.
 ADAMS, James Truslow (1878-1949), American historian.
 ADAMS, Samuel (1722-1803), American revolutionary patriot.
 ADDAMS, Jane (1860-1935), American social worker.
 ADE, George (1866-1944), American humorist.
 ADLER, Alfred (1870-1937), Austrian psychologist.
 AESCHYLUS (525-426 B.C.), Greek dramatist.
 AESOP (c.600 B.C.), Greek fabulist.
 ALCOTT, Louisa May (1832-1888), American author.
 ALDEN, John (1599?-1687), American Pilgrim.
 ALEXANDER the Great (356-323 B.C.), Macedonian conqueror.
 ALGER, Horatio (1834-1899), American author.
 ALLEN, Ethan (1739-1789), American revolutionary soldier.
 AMPÈRE, André Marie (1596-1684), French physicist.
 ANDERSEN, Hans Christian (1805-1875), Danish author.
 ANDERSON, Sherwood (1876-1941), American author.
 ANDREYEV, Leonid (1871-1919), Russian author.
 ANTHONY, Susan Brownell (1820-1906), American woman suffragist.
 ANTONIUS, Marcus (known in English as Mark Anthony) (83?-30 B.C.), Roman statesman.
 AQUINAS, St. Thomas (1225?-1274), Italian philosopher.
 ARCHIMEDES (287?-212 B.C.), Greek mathematician.

ARISTOPHANES (448?-380 B.C.), Greek dramatist.
 ARISTOTLE (384-322 B.C.) Greek philosopher.
 ARLISS, George (1868-1946), English actor.
 ARNOLD, Benedict (1741-1801), American traitor.
 ARNOLD, Matthew (1822-1888), English poet & critic.
 ASTOR, John Jacob (1763-1848), American financier (born Germany).
 ATHERTON, Gertrude Franklin (nee Horn) (1857-1948), American novelist.
 AUDUBON, John James (1785-1851), American ornithologist & artist.
 AUER, Leopold (1845-1930), Hungarian violinist.
 AUGUSTINE, Saint (Aurelius Augustinus) (354-430), Early Christian philosopher.
 AUGUSTUS (Gaius Octavius) (63 B.C.-14 A.D.), Roman emperor.
 AUSTEN, Jane (1775-1817), English novelist.

B

BACH, Johann Sebastian (1685-1750), German composer.
 BACON, Francis (1561-1626), English philosopher.
 BAEDEKER, Karl (1801-1859), German travel-guidebook publisher.
 BALBOA, Vasco Núñez de (1475-1517), Spanish explorer.
 BALDWIN, Stanley (1867-1947), British statesman.
 BALZAC, Honoré de (1799-1850), French novelist.
 BARNUM, Phineas Taylor (1810-1891), American showman.
 BARRIE, Sir James Matthew (1860-1937), Scottish novelist & dramatist.
 BARRY, Philip (1896-1949), American dramatist.
 BARRYMORE, John (1882-1942), American actor.

- BARTÓK**, Béla (1881-1945), Hungarian composer.
- BARTON**, Clara (1821-1912), Founder of American Red Cross.
- BAUDELAIRE**, Pierre Charles (1821-1867), French poet.
- BEARD**, Charles Austin (1874-1948), American historian.
- BECKET**, Thomas (1118?-1170), English churchman.
- BEDE**, Saint ("The Venerable Bede") (673-735), English scholar.
- BEECHER**, Henry Ward (1813-1887), American clergyman.
- BEERY**, Wallace (1889-1949), American actor.
- BEETHOVEN**, Ludwig van (1770-1827), German composer (Flemish descent).
- BELASCO**, David (1854-1931), American dramatist & producer.
- BELL**, Alexander Graham (1847-1922), American inventor (born Scotland).
- BELLAMY**, Edward (1850-1898), American author.
- BELLOWS**, George Wesley (1882-1925), American painter & lithographer.
- BENCHLEY**, Robert Charles (1889-1945), American humorist.
- BENEŠ**, Eduard (1884-1948), Czech statesman.
- BENÉT**, Stephen Vincent (1898-1943), American poet & story writer.
- BENÉT**, William Rose (1886-1950), American poet & novelist.
- BENJAMIN**, Judah Philip (1811-1884), Confederate statesman.
- BENNETT**, Enoch Arnold (1867-1931), English novelist & dramatist.
- BENNETT**, James Gordon (1795-1872), American editor (born Scotland).
- BERLOZ**, Louis Hector (1803-1869), French composer.
- BERNADETTE** of Lourdes (Bernadette Soubirous) (1844-1879), French saint.
- BERNHARDT**, Sarah (Rosine Bernard) (1844-1923), French actress.
- BEVIN**, Ernest (1884-1951), British statesman.
- BIERCE**, Ambrose Gwinnett (1842-1914), American journalist.
- BISMARCK-SCHÖNHAUSEN**, Prince Otto Eduard Leopold von (1815-1898), German statesman.
- BIZET**, Georges (Alexandre César Léopold Bizet) (1838-1875), French composer.
- BLACKSTONE**, Sir William (1723-1780), English jurist.
- BLAINE**, James Gillespie (1830-1893), American statesman.
- BLAKE**, William (1757-1827), English poet & artist.
- BLASCO-IBÁÑEZ**, Vicente (1867-1928), Spanish novelist.
- BLUM**, Leon (1872-1950), French statesman.
- BOCCACCIO**, Giovanni (1313-1375), Italian author (born France).
- BOLÍVAR**, Simón (1783-1830), South American liberator (born Venezuela).
- BOND**, Carrie (nee Jacobs) (1862-1946), American song composer.
- BOONE**, Daniel (1734-1820), American frontiersman.
- BOOTH**, Edwin Thomas (1833-1893), American actor.
- BOOTH**, "General" Evangeline Cory (1865-1950), English religious leader.
- BOOTH**, John Wilkes (1838-1865), American actor & assassin of Lincoln.
- BORGIA**, Cesare (1475?-1507), Italian nobleman.
- BORGIA**, Lucrezia (1480-1519), Italian noblewoman & duchess of Ferrara.
- BORODIN**, Alexander Prokofievich (1834-1887), Russian composer.
- BOSWELL**, James (1740-1795), Scottish biographer & diarist.
- BOTTICELLI**, Sandro (Alessandro di Mariano del Filipepi) (1444?-1510), Italian painter.
- BOWIE**, James (1799-1836), American soldier.
- BRAHMS**, Johannes (1833-1897), German composer.
- BRaille**, Louis (1809-1852), French teacher of blind.
- BRANDEIS**, Louis Dembitz (1856-1941), American jurist.
- BRICE**, Fanny (Fannie Borach) (1892-1951), American comedienne.
- BRISBANE**, Arthur (1864-1936), Australian journalist.
- BRONTË**, Charlotte (1816-1855), English novelist.
- BRONTË**, Emily Jane (1818-1848), English novelist.
- BROOKE**, Rupert (1887-1915), English poet.
- BROWN**, Matthew Heywood Campbell (1888-1939), American journalist.
- BROWN**, John (1800-1859), American abolitionist.
- BROWNING**, Elizabeth Barrett (nee Elizabeth Moulton*) (1806-1861), English poet.
- BROWNING**, Robert (1812-1889), English poet.
- BRUEGHEL**, Pieter (1520?-1569), Flemish painter.
- BRUTUS**, Marcus Junius (85?-42 B.C.), Roman politician.

* Family name changed by father to Barrett.

- BRYAN, William Jennings (1860-1925), American politician.
- BRYANT, William Cullen (1794-1878), American poet & editor.
- BUDDHA. *See* Gautama Buddha.
- BUFFALO BILL (William Frederick Cody) (1846-1917), American scout.
- BUNYAN, John (1628-1688), English preacher & author.
- BURBANK, Luther (1849-1926), American horticulturist.
- BURKE, Edmund (1729-1797), British statesman (born Ireland).
- BURNS, Robert (1759-1796), Scottish poet.
- BURR, Aaron (1756-1836), American statesman.
- BURROUGHS, John (1837-1921), American naturalist.
- BUTLER, Nicholas Murray (1862-1947), American educator.
- BUTLER, Samuel (1835-1902), English satirist.
- BYRON, George Gordon (6th Baron Byron) (1788-1824), English poet.

C

- CABOT, John (Giovanni Caboto) (1450-1498), Italian navigator.
- CABOT, Sebastian (1476?-1557), English navigator (born Italy).
- CAESAR, Gaius Julius (100-44 B.C.), Roman statesman.
- CALHOUN, John Caldwell (1782-1850), American statesman.
- CALVIN, John (Jean Chauvin) (1509-1564), French religious reformer.
- CAPONE, Al (Alphonse) (1899-1947), American gangster (born Italy).
- CARDOZO, Benjamin Nathan (1870-1938), American jurist.
- CARLYLE, Thomas (1795-1881), Scottish essayist & historian.
- CARNEGIE, Andrew (1835-1919), American industrialist (born Scotland).
- CARROLL, Lewis (Charles Lutwidge Dodgson) (1832-1898), English author & mathematician.
- CARSON, Kit (Christopher) (1809-1868), American scout.
- CARTER, Mrs. Leslie (1862-1937), American actress.
- CARUSO, Enrico (Errico) (1873-1921), Italian tenor.
- CARVER, George Washington (1864-1943), American botanist.
- CASANOVA DE SEINGALT, Giovanni Jacopo (1725-1798), Italian adventurer.
- CATHER, Willa Sibert (1876-1947), American novelist.
- CATT, Carrie Chapman (nee Lane) (1859-1947), American woman-suffragist.
- CELLINI, Benvenuto (1500-1571), Italian goldsmith & sculptor.
- CERVANTES SAAVEDRA, Miguel de (1547-1616), Spanish novelist.
- CÉZANNE, Paul (1839-1906), French painter.
- CHALAPIN, Feodor Ivanovitch (1873-1938), Russian basso.
- CHAMBERLAIN, Arthur Neville (1869-1940), British statesman.
- CHAMPLAIN, Samuel de (1567?-1635), French explorer.
- CHANEY, Lon (1883-1930), American actor.
- CHARLEMAGNE (742-814), Holy Roman Emperor.
- CHATTERTON, Thomas (1752-1770), English poet.
- CHAUCER, Geoffrey (1340?-1400), English poet.
- CHEKHOV, Anton Pavlovich (1860-1904), Russian dramatist & story writer.
- CHESTERTON, Gilbert Keith (1874-1936), English author.
- CHIPPENDALE, Thomas (1718?-1779), English cabinetmaker.
- CHOPIN, Frédéric François (1810-1849), French composer (born Poland).
- CHRISTIANS, Mady (Marguerita) (1900-1951); American actress (born Austria).
- CICERO, Marcus Tullius (106-43 B.C.), Roman orator & statesman.
- CLARK, George Rogers (1752-1818), American Revolutionary leader.
- CLARK, William (1770-1838), American explorer.
- CLAY, Henry (1777-1852), American statesman.
- CLEMENCEAU, Georges (1841-1929), French statesman.
- CLEMENS, S. L. *See* Twain.
- CLEOPATRA (69-30 B.C.), Egyptian queen.
- COBB, Irvin Shrewsbury (1876-1944), American humorist.
- CODY, W. F. *See* Buffalo Bill.
- COHAN, George Michael (1878-1942), American actor & dramatist.
- COLERIDGE, Samuel Taylor (1772-1834), English poet.
- COLUMBUS, Christopher (Cristoforo Colombo) (1451-1506), Italian navigator.
- CONFUCIUS (K'ung Fu-tzu) (c.551-479 B.C.), Chinese philosopher.
- CONGREVE, William (1670-1729), English dramatist.
- CONRAD, Joseph (Teodor Józef Konrad Korzeniowski) (1857-1924), English novelist (born Ukraine).
- COOPER, James Fenimore (1789-1851), American novelist.

COOPER, Peter (1791-1883), American industrialist & philanthropist.

COPERNICUS, Nicolaus (Mikolaj Koper-nik) (1473-1543), Polish astronomer.

CORBETT, James J. (1866-1933), American boxer.

CORDAY, Charlotte (Marie Anne Charlotte Corday d'Armont) (1768-1793), French patriot.

CORNEILLE, Pierre (1606-1684), French dramatist.

CORONADO, Francisco Vázquez (1510-1554), Spanish explorer.

COROT, Jean Baptiste Camille (1796-1875), French painter.

CORREGGIO, Antonio Allegri da (1494-1534), Italian painter.

CORTÉS (or CORTEZ), Hernando (1485-1547), Spanish conqueror.

COWL, Jane (Jane Cowles) (1884-1950), American actress.

COWPER, William (1731-1800), English poet.

CRANE, Stephen (1871-1900), American novelist & poet.

CROCKETT, Davy (David) (1786-1836), American frontiersman.

CURIE, Marie (Marja Skłodowska) (1867-1934), French physical chemist (born Poland).

CURIE, Pierre (1859-1906), French chemist.

CUSTER, George Armstrong (1839-1876), American army officer.

D

DAMROSCH, Walter Johannes (1862-1950), American orchestra conductor.

DANA, Charles Anderson (1819-1897), American editor.

D'ANNUNZIO, Gabriele (1863-1938), Italian soldier & author.

DANTE (or DURANTE) ALIGHIERI (1265-1321), Italian poet.

DANTON, Georges Jacques (1759-1794), French revolutionary leader.

DARWIN, Charles Robert (1809-1882), English naturalist.

DAUMIER, Honoré (1808-1879), French caricaturist.

DAVIS, Jefferson (1808-1889), Confederate President.

DEBS, Eugene Victor (1855-1926), American Socialist.

DEBUSSY, Achille Claude (1862-1918), French composer.

DE FALLA. *See* Falla.

DEFOE, Daniel (1659?-1731), English novelist.

DEGAS, Hilaire Germain Edgar (1834-1917), French painter.

DEMOSTHENES (385?-322 B.C.), Greek orator.

DESCARTES, René (1596-1650), French philosopher & mathematician.

DE SOTO, Hernando (1500?-1542), Spanish explorer.

DICKENS, Charles John Huffam (1812-1870), English novelist.

DICKINSON, Emily Elizabeth (1830-1886), American poet.

DIOGENES (412?-323 B.C.), Greek philosopher.

DISRAELI, Benjamin (1804-1881), British statesman.

DODGSON, C. L. *See* Carroll.

DOLLFUSS, Engelbert (1892-1934), Austrian statesman.

DONNE, John (1573-1631), English poet.

DOSTOEVSKI, Fyodor Mikhailovich (1821-1881), Russian novelist.

DOUGLAS, Lloyd Cassel (1877-1951), American novelist.

DOUGLAS, Stephen Arnold (1813-1861), American politician.

DOYLE, Sir Arthur Conan (1859-1930), English novelist & spiritualist.

DRAKE, Sir Francis (1545?-1596), English navigator.

DREISER, Theodore (1871-1945), American novelist.

DRESSLER, Marie (Marie Koerber) (1873-1934), American actress (born Canada).

DREYFUS, Alfred (1859-1935), French army officer.

DRYDEN, John (1631-1700), English poet.

DUMAS, Alexandre (called Dumas père) (1802-1870), French novelist.

DU MAURIER, George Louis Palmella Busson (1834-1896), English novelist (born Paris).

DUNCAN, Isadora (1878-1927), American dancer.

DUSE, Eleonora (1859-1924), Italian actress.

DVOŘÁK, Antonín (1841-1904), Czech composer.

E

EARHART, Amelia (1898-1937), American aviator.

EDDY, Mary Morse (nee Baker) (1821-1910), American religious leader.

EDISON, Thomas Alva (1847-1931), American inventor.

EHRLICH, Paul (1854-1915), German bacteriologist.

ELGAR, Sir Edward (1857-1934), English composer.

ELIOT, George (Mary Ann Evans) (1819-1880), English novelist.

EMERSON, Ralph Waldo (1803-1882), American philosopher & poet.

EPICURUS (342?-270 B.C.), Greek philosopher.

ERASMUS, Desiderius (Gerhard Gerhards) (1466?-1536), Dutch scholar.

ERICSON, Leif (c. 10th century A.D.), Norse navigator.

ERSKINE, John (1879-1951), American educator & author.

EUCLID, (c.300 B.C.), Greek mathematician.

EURIPIDES (c.484-407 B.C.), Greek dramatist.

F

FAIRBANKS, Douglas (1883-1939), American actor.

FALLA, Manuel de (1876-1946), Spanish composer.

FARADAY, Michael (1791-1867), English physicist.

FIELD, Eugene (1850-1895), American poet.

FIELDING, Henry (1707-1754), English novelist.

FIELDS, W. C. (Claude William Dukenfield) (1880-1946), American comedian.

FISKE, Minnie Maddern (nee Davey) (1865-1932), American actress.

FITZGERALD, Francis Scott Key (1896-1940), American novelist.

FITZSIMMONS, Robert Prometheus (1862-1917), New Zealand boxer (born England).

FLAUBERT, Gustave (1821-1880), French novelist.

FOCH, Ferdinand (1851-1929), French army officer.

FORD, Henry (1863-1947), American industrialist.

FORRESTAL, James (1892-1949), American statesman.

FOSTER, Stephen Collins (1826-1864), American song composer.

FRANCE, Anatole (Jacques Anatole Francois Thibault) (1844-1924), French author.

FRANCK, César Auguste (1822-1890), French composer (born Belgium).

FRANKLIN, Benjamin (1706-1790), American statesman & scientist.

FREDERICK II the Great (1740-1786), King of Prussia.

FREUD, Sigmund (1856-1939), Austrian founder of psychoanalysis.

FULTON, Robert (1765-1815), American inventor.

G

GAINSBOROUGH, Thomas (1727-1788), English painter.

GALILEI, Galileo (1564-1642), Italian astronomer & physicist.

GALSWORTHY, John (1867-1933), English novelist & dramatist.

GANDHI, Mohandas Karamchand (called Mahatma Gandhi) (1869-1948), Hindu leader.

GARIBALDI, Giuseppe (1807-1882), Italian nationalist leader.

GARRICK, David (1717-1779), English actor.

GARRISON, William Lloyd (1805-1879), American abolitionist.

GAUGUIN, Eugène Henri Paul (1848-1903), French painter.

GAUTAMA BUDDHA (Prince Siddhartha) 563?-483 B.C.), Indian philosopher.

GEHRIG, Lou (Henry Louis Gehrig) (1903-1941), American baseball player.

GENGHIS KHAN (Temujin) (1162-1227), Mongol conqueror.

GEORGE, Henry (1839-1897), American economist.

GERONIMO (Goyathlay) (1829-1909), Apache chieftain.

GERSHWIN, George (1898-1937), American composer.

GIBBON, Edward (1737-1794), English historian.

GIBSON, Charles Dana (1867-1944), American illustrator.

GIDE, André (1869-1951), French author.

GILBERT, Sir William Schwenck (1836-1911), English dramatist & librettist.

GIOTTO di Bondone (1276?-1337), Italian painter.

GLADSTONE, William Ewart (1809-1898), British statesman.

GLUCK, Christoph Willibald (1714-1787), German composer.

GOEBBELS, Joseph Paul (1897-1945), German Nazi leader.

GOERING, Hermann (1893-1946), German Nazi leader.

GOETHALS, George Washington (1858-1928), American engineer.

GOETHE, Johann Wolfgang von (1749-1832), German poet.

GOGH, Vincent van (1853-1890), Dutch painter.

GOGOL, Nikolai Vasilevich (1809-1852), Russian novelist.

GOLDSMITH, Oliver (1728-1774), English dramatist & poet.

GOMPERS, Samuel (1850-1924), American labor leader.

GOODYEAR, Charles (1800-1860), American inventor.

GORKI, Maxim (Alexei Maximovich Peshkov) (1868-1936), Russian novelist & dramatist.

GOUDOT, Charles François (1818-1893), French composer.

GOYA \times LUCIENTES, Francisco José de (1746-1828), Spanish painter.

GRAY, Thomas (1716-1771), English poet.

GRECO, El (Domenicos Theotocopoulos) (c.1542-1614), Spanish painter (born Crete).

GREELEY, Horace (1811-1872), American journalist & politician.

GREY, Zane (1875-1939), American novelist.

GRIEG, Edvard Hagerup (1843-1907), Norwegian composer.

GRIFFITH, David Lewelyn Wark (1875-1948), American movie producer.

GRIMM, Jacob (1785-1863), German mythologist.

GRIMM, Wilhelm (1786-1859), German mythologist.

GUTENBERG, Johann (1400?-1468), German printer.

H

HALE, Nathan (1755-1776), American revolutionary officer.

HALS, Frans (1580?-1666), Dutch painter.

HAMILTON, Alexander (1757?-1804), American statesman.

HANCOCK, John (1737-1793), American statesman.

HANDEL, George Frederick (Georg Friedrich Händel) (1685-1759), English composer (born Germany).

HANNIBAL, (247-183 B.C.), Carthaginian general.

HARDY, Thomas (1840-1928), English novelist.

HARLOW, Jean (Harlean Carpenter) (1911-1937), American actress.

HARTE, Bret (Francis Brett Harte) (1836-1902); American author.

HARVEY, William (1578-1657), English physician.

HAWTHORNE, Nathaniel (1804-1864), American novelist.

HAY, John Milton (1838-1905), American statesman.

HAYDN, Franz Joseph (1732-1809), Austrian composer.

HEARN, Lafcadio (Patricio Lafcadio Tessima Carlos Hearn) (1850-1904), American-Japanese author (born Ionian Is.)

HEARST, William Randolph (1863-1951), American journalist.

HEINE, Heinrich (Harry) (1797-1856), German poet.

HENRY, O. (William Sydney Porter) (1862-1910), American story writer.

HENRY, Patrick (1736-1799), American statesman.

HEPPLEWHITE, George (?-1786), English furniture designer.

HERBERT, Victor (1859-1924), American composer (born Ireland).

HERODOTUS (c.484-425 B.C.), Greek historian.

HINDENBURG, Paul von (Paul Ludwig Hans Anton von Beneckendorff und von Hindenburg) (1847-1934), German statesman.

HIPPOCRATES (460?-377 B.C.), Greek physician.

HITLER, Adolf (Adolf Schicklgruber) (1889-1945), German chancellor.

HOGARTH, William (1697-1764), English painter & engraver.

HOLBEIN, Hans (called the Elder) (1465?-1524), German painter.

HOLBEIN, Hans (called the Younger) (1497?-1543), German painter.

HOLMES, Oliver Wendell (1809-1894), American author.

HOLMES, Oliver Wendell (1841-1935), American jurist.

HOMER, Winslow (1836-1910), American painter.

HOOD, Thomas (1799-1845), English poet.

HORACE (Quintus Horatius Flaccus) (65-8 B.C.), Roman poet.

HOUDINI, Harry (Ehrich Weiss) (1874-1926), American magician.

HOUSMAN, Alfred Edward (1859-1936), English poet.

HOUSTON, Samuel (1793-1863), American political leader.

HOWARD, Leslie (1893-1943), English actor.

HOWE, Elias (1819-1867), American inventor.

HOWELLS, William Dean (1837-1920), American author.

HUBBARD, Elbert Green (1856-1915), American author.

HUDSON, Henry (?-1611), English explorer.

HUGHES, Charles Evans (1862-1948), American jurist.

HUGO, Victor Marie (1802-1885), French novelist, dramatist & poet.

HUNT, Leigh (James Henry Leigh Hunt) (1784-1859), English essayist & poet.

HUSTON, Walter (1884-1950), American actor (born Canada).

HUXLEY, Thomas Henry (1825-1895), English biologist.

I

- IBSEN, Henrik (1828-1906), Norwegian dramatist.
 INNESS, George (1825-1894), American painter.
 IRVING, Washington (1783-1859), American author.

J

- JACKSON, Thomas Jonathan (called Stonewall) (1824-1863), Confederate general.
 JAMES, Henry (1843-1916), American novelist.
 JAMES, Jesse Woodson (1847-1882), American outlaw.
 JAMES, William (1842-1910), American psychologist.
 JAY, John (1745-1829), American statesman & jurist.
 JEFFERSON, Joseph (1829-1905), American actor.
 JENNER, Edward (1749-1823), English physician.
 JOAN OF ARC (Jeanne d'Arc) (1412-1431), French military heroine.
 JOFFRE, Joseph Jacques Césaire (1852-1931), French general.
 JOHNSON, Jack (John A.) (1878-1946), American boxer.
 JOHNSON, Samuel (1709-1784), English lexicographer & critic.
 JOLLIET (or JOLIET), Louis (1645-1700), Canadian explorer.
 JOLSON, Al (Asa Yoelson) (1886-1950), American actor & singer (born Russia?).
 JONES, John Paul (John Paul*) (1747-1792), American naval officer (born Scotland).
 JONSON, Ben (Benjamin) (1573?-1637), English poet & dramatist.
 JOYCE, James (1882-1941), Irish novelist.
 JUÁREZ, Benito Pablo (1806-1872), Mexican statesman.

K

- KANT, Immanuel (1724-1804), German philosopher.
 KEATS, John (1795-1821), English poet.
 KEMAL ATATÜRK (Mustafa Kemal) (1881-1938), Turkish statesman.
 KERN, Jerome David (1885-1945), American composer.
 KEY, Francis Scott (1779-1843), American lawyer.
 KIDD, William (called Capt. Kidd) (1645?-1701), pirate (born Scotland).
 KING, William Lyon Mackenzie (1874-1950), Canadian statesman.
 KIPLING, Rudyard (1865-1936), English poet & story writer.

- KITCHENER, Horatio Herbert (1850-1916), British military officer.
 KNOX, John (1505-1572), Scottish religious reformer.
 KOSCIUSKO, Thaddeus (Tadeusz Andrzej Bonawentura Kościuszko) (1746-1817), Polish military officer.
 KOUSSEVITZKY, Serge (Sergei) Alexandrovitch (1874-1951), American orchestra conductor (born Russia).
 KUBLAI KHAN (1216-1294), Mongol conqueror.

L

- LAFAYETTE, Marquis de (Marie Joseph Paul Yves Roch Gilbert du Motier) (1757-1834), French military officer.
 LA FOLLETTE, Robert Marion (1855-1925), American politician.
 LA GUARDIA, Fiorello Henry (1882-1947), American politician.
 LAMB, Charles (1775-1834), English essayist.
 LANDIS, Kenesaw Mountain (1866-1944), American jurist.
 LANGTRY, Lily (nee Emily Charlotte Le Breton) (1852-1929), English actress.
 LANIER, Sidney (1842-1881), American poet.
 LAO-TZU (or LAO-TSE) (Li Erh) (c.604-531 B.C.), Chinese philosopher.
 LARDNER, Ring (Ringgold Wilmer Lardner) (1885-1933), American story writer.
 LA SALLE, Sieur de (Robert Cavelier) (1643-1687), French explorer.
 LAUDER, Sir Harry (Harry MacLennan) (1870-1950), Scottish singer.
 LAVAL, Pierre (1883-1945), French politician.
 LAVOISIER, Antoine Laurent (1743-1794), French chemist.
 LAWRENCE, David Herbert (1885-1930), English novelist.
 LAWRENCE OF ARABIA (Thomas Edward Lawrence†) (1888-1935), British author & soldier.
 LEAR, Edward (1812-1888), English nonsense poet.
 LEE, Robert Edward (1807-1870), American military officer; commander-in-chief of Confederate armies.
 LEHÁR, Franz (1870-1948), Hungarian composer.
 LENIN, Nikolai (Vladimir Ilich Ulyanov) (1870-1924), Soviet statesman.
 LEONARD, Benny (Benjamin Leiner) (1896-1947), American boxer.
 LEWIS, Meriwether (1774-1809), American explorer.
 LEWIS, Sinclair (1885-1951), American novelist.

* Added Jones to his name c. 1773. † Changed surname to Shaw in 1927.

- LILIUOKALINI**, Lydia Kamekeha (1838-1917), Hawaiian queen.
- LIND**, Jenny (Johanna Maria Lind) (1820-1887), Swedish soprano.
- LINDSAY**, Nicholas Vachel (1879-1931), American poet.
- LISTER**, Joseph (1827-1912), English surgeon.
- LISZT**, Franz (1811-1886), Hungarian composer & pianist.
- LIVINGSTONE**, David (1813-1873), Scottish missionary & explorer.
- LLOYD GEORGE**, David (1863-1945), British statesman.
- LOCKE**, John (1632-1704), English philosopher.
- LODGE**, Henry Cabot (1850-1924), American legislator.
- LOMBARD**, Carole (Carol Jane Peters) (1908-1942), American actress.
- LOMBROSO**, Cesare (1836-1909), Italian criminologist.
- LONDON**, Jack (1876-1916), American novelist.
- LONG**, Huey Pierce (1893-1935), American politician.
- LONGFELLOW**, Henry Wadsworth (1807-1882), American poet.
- LOWELL**, Amy (1874-1925), American poet.
- LOWELL**, James Russell (1819-1891), American poet.
- LOYOLA**, St. Ignatius of (Íñigo de Oñez y Loyola) (1491-1556), Spanish founder of Jesuits.
- LUBITSCH**, Ernst (1892-1947), American movie director (born Germany).
- LUDENDORFF**, Erich Friedrich Wilhelm (1865-1937), German general.
- LUTHER**, Martin (1483-1546), German religious reformer.
- M**
- MACAULAY**, Thomas Babington (1800-1859), English author & statesman.
- MCCORMACK**, John (1884-1945), American tenor (born Ireland).
- MCCORMICK**, Cyrus Hall (1809-1884), American inventor.
- MACDONALD**, James Ramsay (1866-1937), British statesman (born Scotland).
- MACDOWELL**, Edward Alexander (1861-1908), American composer.
- MCGRAW**, John J. (1875-1934), American baseball manager.
- MACHIARELLI**, Niccolò (1469-1527), Italian political philosopher.
- MAETERLINCK**, Count Maurice (1862-1949), Belgian author.
- MAGELLAN**, Ferdinand (Fernando de Magalhães) (1480?-1521), Portuguese navigator.
- MAHAN**, Alfred Thayer (1840-1914), American naval historian.
- MANET**, Édouard (1832-1883), French painter.
- MANN**, Horace (1796-1859), American educator.
- MANSFIELD**, Katherine (Kathleen Murry, nee Beauchamp) (1888-1923), British story writer (born New Zealand).
- MANSFIELD**, Richard (1854-1907), American actor (born Germany of English parents).
- MARAT**, Jean Paul (1743-1793), French revolutionist (born Switzerland).
- MARCONI**, Guglielmo (1874-1937), Italian inventor.
- MARCUS AURELIUS** (Marcus Annius Verus) (121-180), Roman emperor.
- MARIE-ANTOINETTE** (Josèphe Jeanne Marie Antoinette) (1755-1793), French queen (born Austria).
- MARK ANTHONY**. *See* Antonius.
- MARKHAM**, Charles Edwin (1852-1940), American poet.
- MARLOWE**, Christopher (1564-1593), English dramatist.
- MARQUETTE**, Jacques (1637-1675), French Jesuit missionary & explorer.
- MARSHALL**, John (1755-1835), American jurist.
- MARX**, Karl (1818-1883), German political philosopher.
- MARY STUART** (1542-1587), Queen of Scotland.
- MASARYK**, Thomas Garrigue (1850-1937), Czech statesman.
- MASSNET**, Jules Émile Frédéric (1842-1912), French composer.
- MASTERS**, Edgar Lee (1869-1950), American poet.
- MAUPASSANT**, Henri René Albert Guy de (1850-1893), French story writer.
- MAXIMILIAN** (Ferdinand Maximilian Joseph) (1832-1867), Emperor of Mexico (born Austria).
- MAYO**, Charles Horace (1865-1939), American surgeon.
- MAYO**, William James (1861-1939), American surgeon.
- MEDICI**, Lorenzo de' (called Lorenzo the Magnificent) (1449-1492), Florentine ruler.
- MELBA**, Nellie (Helen Porter Mitchell) (1861-1931), Australian soprano.
- MELLON**, Andrew William (1855-1937), American financier.
- MELVILLE**, Herman (1819-1891), American novelist.
- MENDEL**, Gregor Johann (1822-1884), Austrian botanist.

MENDELEYEV, Dmitri Ivanovich (1834-1907), Russian chemist.

MENDELSSOHN, Felix (Jakob Ludwig Felix Mendelssohn-Bartholdy) (1809-1847), German composer.

MESMER, Franz Anton (1734-1815), Austrian physician.

METTERNICH, Prince Klemens Wenzel Nepomuk Lothar von (1773-1859), Austrian statesman.

MEYERBEER, Giacomo (Jakob Liebmann Beer) (1791-1864), German composer.

MICHELANGELO (Michelangelo Buonarroti) (1475-1564), Italian painter & sculptor.

MILL, John Stuart (1806-1873), English philosopher.

MILLAY, Edna St. Vincent (1892-1950), American poet.

MILLER, Glenn (1909?-1944), American band leader.

MILTON, John (1608-1674), English poet.

MINUIT, Peter (1680-1638), Dutch colonial officer in America.

MITCHELL, Margaret (1900-1949), American novelist.

MOHAMMED (570-632), Arabian prophet.

MOLIÈRE (Jean Baptiste Poquelin) (1622-1673), French dramatist.

MOLNÁR, Ferenc (1878-1952), Hungarian dramatist.

MONET, Claude (1840-1926), French painter.

MONTAIGNE, Michel Eyquem de (1533-1592), French essayist.

MONTEZUMA II (1480?-1520), Aztec emperor.

MOONEY, Thomas J. Zechariah (1885-1942), American labor leader.

MOORE, George (1852-1933), Irish novelist.

MOORE, Thomas (1779-1852), Irish poet.

MORE, Sir Thomas (1478-1535), English statesman & author.

MORGAN, Helen (1900?-1941), American singer.

MORGAN, John Pierpont (1837-1913), American financier.

MORSE, Samuel Finley Breese (1791-1872), American inventor & painter.

MOZART, Wolfgang Amadeus (Johannes Chrysostomus Wolfgangus Theophilus Mozart) (1756-1791), Austrian composer.

MURILLO, Bartolomé Esteban (1617-1682), Spanish painter.

MUSORGSKY (or MOUSSORGSKY), Modest Petrovich (1835-1881), Russian composer.

MUSSOLINI, Benito (1883-1945), Italian dictator.

N

NAPOLEON BONAPARTE (Napoleone Buonaparte) (1769-1821), Emperor of France (born Corsica).

NAST, Thomas (1840-1902), American cartoonist (born Germany).

NATION, Carry Amelia (nee Moore) (1846-1911), American temperance leader.

NELSON, Horatio (1758-1805), British naval officer.

NERO (Nero Claudius Caesar Drusus Germanicus) (37-68 A.D.), Roman emperor.

NEWTON, Sir Isaac (1642-1727), English mathematician & scientist.

NIETZSCHE, Friedrich Wilhelm (1844-1900), German philosopher.

NIGHTINGALE, Florence (1820-1910), English nurse (born Italy).

NIJINSKY, Waslaw (1890-1950), Russian dancer (Polish descent).

NOBEL, Alfred Bernhard (1833-1896), Swedish inventor & industrialist.

NOSTRADAMUS (Michael de Notredame) (1503-1566), French astrologer.

O

OCHS, Adolph Simon (1858-1935), American newspaper publisher.

OFFENBACH, Jacques (1819-1880), French composer (born Germany).

OMAR KHAYYÁM (died c.1123), Persian poet & astronomer.

OROZCO, José Clemente (1883-1949), Mexican painter.

OSLER, Sir William (1849-1919), Canadian physician.

OVID (Publius Ovidius Naso) (43 B.C.-?17 A.D.), Roman poet.

P

PADEREWSKI, Ignace Jan (1860-1941), Polish pianist & statesman.

PAGANINI, Nicolò (1782-1840), Italian violinist.

PAINE, Thomas (1737-1809), American political philosopher (born England).

PARNELL, Charles Stewart (1846-1891), Irish nationalist leader.

PASTEUR, Louis (1822-1895), French chemist.

PATTON, George Smith (1885-1945), American general.

PAVLOV, Ivan Petrovich (1849-1936), Russian physiologist.

PAVLOVA, Anna (1885-1931), Russian dancer.

PEARY, Robert Edwin (1856-1920), American explorer.

PENN, William (1644-1718), English colonist in America.

PEPYS, Samuel (1633-1703), English diarist.

PERICLES (died 429 B.C.), Athenian statesman.

PERSHING, John Joseph (1860-1948), American general.

PÉTAIN, Henri Philippe (1856-1951), French ex-Marshall.

PETRARCH (Francesco Petrarca) (1304-1374), Italian poet.

PHELPS, William Lyon (1865-1943), American critic.

PIKE, Zebulon Montgomery (1779-1813), American explorer.

PIRANDELLO, Luigi (1867-1936), Italian dramatist & novelist.

PITT, William (called "the Younger Pitt") (1759-1806), British statesman.

PIZARRO, Francisco (1470?-1541), Spanish conqueror.

PLATO (Aristocles) (427?-347 B.C.), Greek philosopher.

PLUTARCH (46?-?120 A.D.), Greek biographer.

POCAHONTAS (Matoaka) (1595?-1617), American Indian princess.

POE, Edgar Allan (1809-1849), American poet & story writer.

POLO, Marco (1254?-?1324), Italian traveler.

POMPEY (Gnaeus Pompeius Magnus) (106-48 B.C.), Roman general.

PONCE DE LEÓN, Juan (1460?-1521), Spanish explorer.

POPE, Alexander (1688-1744), English poet.

POST, Wiley (1900-1935), American aviator.

PROUST, Marcel (1871-1922), French novelist.

PUCCINI, Giacomo (1854-1924), Italian composer.

PULITZER, Joseph (1847-1911), American newspaper publisher.

PUSHKIN, Alexander Sergeevich (1799-1837), Russian poet & dramatist.

PLYE, Ernest Taylor (1900-1945), American journalist.

R

RABELAIS, François (1494?-1553), French satirist.

RACHMANINOFF, Sergel Wassilievitch (1873-1943), Russian pianist & composer.

RACINE, Jean Baptiste (1639-1699), French dramatist.

RALEIGH (or RALEGH), Sir Walter (1522?-1618), English courtier & navigator.

RAPHAEL (Raffaello Santi) (1483-1520), Italian painter.

RASPUTIN, Grigori Efimovich (1871?-1916), Russian monk.

RAVEL, Maurice Joseph (1875-1937), French composer.

REED, Walter (1851-1902), American army surgeon.

REID, Whitelaw (1837-1912), American journalist & diplomat.

REINHARDT, Max (Max Goldmann) (1873-1943), Austrian theatrical producer (U. S. citizen, 1940).

REMBRANDT, Harmensz van Rijn (1606-1669), Dutch painter.

RENOIR, Pierre Auguste (1841-1919), French painter.

RESPIGHI, Ottorino (1879-1936), Italian composer.

REVERE, Paul (1735-1818), American patriot & silversmith.

REYNOLDS, Sir Joshua (1723-1792), English painter.

RHODES, Cecil John (1853-1902), South African financier & statesman (born England).

RICHELIEU, Duc de (Armand Jean du Plessis) (1585-1642), French cardinal & statesman.

RILEY, James Whitcomb (1849-1916), American poet.

RIMSKI-KORSAKOV, Nikolai Andreevich (1844-1908), Russian composer.

RIPLEY, Robert LeRoy (1893-1949), American cartoonist.

ROBESPIERRE, Maximilien François Marie Isidore de (1758-1794), French revolutionist.

ROBINSON, Bill (Luther) (1878-1949), American dancer.

ROBINSON, Edward Arlington (1869-1935), American poet.

ROCKEFELLER, John Davison (1839-1937), American capitalist.

RODIN, François Auguste René (1840-1917), French sculptor.

ROGERS, Will (William Penn Adair Rogers) (1879-1935), American humorist.

ROLLAND, Romain (1866-1944), French author.

ROMBERG, Sigmund (1887-1951); American composer.

ROMMEL, Erwin (1891-1944), German general.

ROOT, Elihu (1845-1937), American statesman.

ROSSETTI, Dante Gabriel (1828-1882), English painter & poet.

ROSSINI, Gioacchino Antonio (1792-1868), Italian composer.

ROSTAND, Edmond (1868-1918), French dramatist & poet.

- ROUSSEAU, Jean Jacques (1712-1778), French philosopher.
- RUBENS, Peter Paul (1577-1640), Flemish painter.
- RUBINSTEIN, Anton Grigorovich (1829-1894), Russian pianist & composer.
- RUNYON, Alfred Damon (1880-1946), American journalist & author.
- RUSKIN, John (1819-1900), English art critic & author.
- RUSSELL, George William (pseud. AE) (1867-1935), Irish author.
- RUSSELL, Lillian (Helen Louise Leonard) (1861-1922), American soprano.
- RUTH, Babe (George Herman Ruth) 1895-1948), American baseball player.
- S
- SAINT-GAUDENS, Augustus (1848-1907), American sculptor (born Ireland).
- SAINT-SAËNS, Charles Camille (1835-1921), French composer.
- SAND, George (Amandine Lucile Aurore Dudevant, nee Dupin) (1803-1876), French novelist.
- SAPPHO (c.600 B.C.), Greek poet.
- SARGENT, John Singer (1856-1925), American painter.
- SARTO, Andrea del (Andrea Domenico d'Agnolo di Francesco) (1486-1531), Florentine painter.
- SCHILLER, Johann Christoph Friedrich von (1759-1805), German poet & dramatist.
- SCHNABEL, Artur (1882-1951), Austrian pianist.
- SCHOPENHAUER, Arthur (1788-1860), German philosopher.
- SCHUBERT, Franz Peter (1797-1828), Austrian composer.
- SCHUMANN, Robert Alexander (1810-1856), German composer.
- SCHUMANN-HEINK, Ernestine (nee Roessler) (1861-1936), German contralto (born near Prague).
- SCHURZ, Carl (1829-1906), American army officer & statesman (born Germany).
- SCHWAB, Charles Michael (1862-1939), American industrialist.
- SCOTT, Robert Falcon (1868-1912), English Antarctic explorer.
- SCOTT, Sir Walter (1771-1832), Scottish novelist & poet.
- SEWARD, William Henry (1801-1872), American statesman.
- SHAKESPEARE, William (1564-1616), English dramatist & poet.
- SHAW, George Bernard (1856-1950), Irish dramatist & critic.
- SHELLEY, Percy Bysshe (1792-1822), English poet.
- SHERATON, Thomas (1751-1806), English furniture designer.
- SHERIDAN, Richard Brinsley (1751-1816), Irish dramatist.
- SHERMAN, William Tecumseh (1820-1891), American army officer.
- SKINNER, Otis (1858-1942), American actor.
- SLOAN, John (1871-1951), American painter.
- SMETANA, Bedřich (1824-1884), Czech composer.
- SMITH, Adam (1723-1790), Scottish economist.
- SMITH, Alfred Emanuel (1873-1944), American politician.
- SMITH, John (1579-1631), American colonist (born England).
- SMITH, Joseph (1805-1844), American founder of Mormon Church.
- SMUTS, Jan Christiaan (1870-1950), South African statesman.
- SOCRATES (c.470-399 B.C.), Greek philosopher.
- SOPHOCLES (496?-406 B.C.), Greek dramatist.
- SOTHERN, Edward Hugh (1859-1933), American actor.
- SPENCER, Herbert (1820-1903), English philosopher.
- SPENGLER, Oswald (1880-1936), German philosopher.
- SPENSER, Edmund (1552-1599), English poet.
- SPINOZA, Baruch (or Benedict) (1632-1677), Dutch philosopher.
- STANISLAVSKI (Konstantin Sergeevich Alekseev) (1863-1938), Russian stage producer.
- STANLEY, Sir Henry Morton (John Rowlands) (1841-1904), British explorer.
- STEFFENS, Joseph Lincoln (1866-1936), American journalist.
- STEIN, Gertrude (1874-1946), American author.
- STEINMETZ, Charles Proteus (1865-1923), American electrical engineer (born Germany).
- STENDHAL (Marie Henri Beyle) (1783-1842), French novelist.
- STERNE, Laurence (1713-1768), Irish novelist.
- STETTINIUS, Edward Rielley, Jr. (1900-1949), American statesman.
- STEVENSON, Robert Louis Balfour (1850-1894), Scottish novelist & poet.
- STIMSON, Henry Lewis (1867-1950), American statesman.
- STONE, Lucy (1813-1893), American woman suffragist

STOWE, Harriet Elizabeth (nee Beecher) (1811-1896), American novelist.

STRADIVARI, Antonio (1644-1737), Italian violin-maker.

STRAUSS, Johann (1825-1899), Austrian composer.

STRAUSS, Richard (1864-1949), German composer.

STUART, Gilbert Charles (1755-1828), American painter.

STUYVESANT, Peter (1592-1672), Dutch governor of New Amsterdam (New York).

SULLIVAN, Sir Arthur Seymour (1842-1900), English composer.

SULLIVAN, John Lawrence (1858-1918), American boxer.

SUN YAT-SEN (1866-1925), Chinese statesman.

SWIFT, Jonathan (1667-1745), British satirist.

SWINBURNE, Algernon Charles (1837-1909), English poet.

SYNGE, John Millington (1871-1909), Irish dramatist.

T

TALLEYRAND-PÉRIGORD, Charles Maurice de (1754-1838), French statesman.

TAMERLANE (Timur) (1336?-1405), Mongol conqueror.

TARKINGTON, Newton Booth (1869-1946), American novelist.

TCHAIKOVSKY (or TSCHAIKOWSKY), Peter (Pëtr) Il'ich (1840-1893), Russian composer.

TECUMSEH (1768?-1813), Shawnee Indian chief.

TENNYSON, Alfred (1809-1892), English poet.

TERRY, Ellen Alicia (1847-1928), English actress.

TETRAZZINI, Luisa (1874-1940), Italian soprano.

THACKERAY, William Makepeace (1811-1863), English novelist.

THOREAU, Henry David (1817-1862), naturalist & author.

TIBERIUS (Tiberius Claudius Nero Caesar) (42 B.C.-37 A.D.), Roman emperor.

TINTORETTO, IL (Jacopo Robusti) (1518-1594), Italian painter.

TITIAN (Tiziano Vecelli) (1477-1576), Italian painter.

TOLSTOI, Count Leo (Lev) Nikolaevich (1828-1910), Russian novelist.

TOULOUSE-LAUTREC (Henri Marie Raymond de Toulouse-Lautrec Monfia) (1864-1901), French painter.

TROTSKY, Leon (Leib Davydovich Bronstein) (1877-1940), Russian revolutionary leader.

TURGENEV, Ivan Sergeevich (1818-1883), Russian novelist.

TWAIN, Mark (Samuel Langhorne Clemens) (1835-1910), American author.

TWEED, William Marcy (1823-1878), American politician.

V

VALENTINO, Rudolph (Rodolpho d'Antonguolla) (1895-1926), American actor (born Italy).

VANDENBERG, Arthur Hendrick (1884-1951), American legislator.

VANDERBILT, Cornelius (1794-1877), American financier.

VAN DOREN, Carl (1885-1950), American editor & critic.

VANDYKE (or VAN DYCK), Sir Anthony (1599-1641), Flemish painter.

VAN GOGH. *See* Gogh.

VAN LOON, Hendrik Willem (1882-1944), American author (born Netherlands).

VELÁZQUEZ (or VELÁSQUEZ), Diego Rodríguez de Silva y (1599-1660), Spanish painter.

VERDI, Giuseppe (1813-1901), Italian composer.

VERGIL (or VIRGIL) (Publius Vergilius Maro) (70-19 B.C.), Roman poet.

VERMEER, Jan (or Jan van der Meer van Delft) (1632-1675), Dutch painter.

VERNE, Jules (1828-1905), French author.

VILLA, Pancho (or Francisco) (Doroteo Arango) (1877-1923), Mexican bandit.

VILLON, François (François de Montcorbier) (1431-c.1463), French poet.

VINCI, Leonardo da (1452-1519), Italian painter, sculptor & scientist.

VOLTAIRE (François Marie Arouet) (1694-1778), French author.

W

WAGNER, Wilhelm Richard (1813-1883), German composer.

WALKER, James John (1831-1946), American politician.

WALKER, Robert (1919?-1951), American actor.

WALTON, Izaak (1593-1683), English author.

WARFIELD, David (1866-1951), American actor.

WASHINGTON, Booker Tallaferro (1856-1915), American educator.

WATT, James (1736-1819), Scottish inventor.

WAYNE, Anthony (1745-1796), American Revolutionary officer, known as "Mad Anthony."

WEBER, Karl Maria Friedrich Ernst von (1786-1826), German composer.

WEBSTER, Daniel (1782-1852), American statesman.

WEBSTER, Noah (1758-1843), American lexicographer.

WEILL, Kurt (1900-1950), American composer (born Germany).

WELLINGTON, Duke of (Arthur Wellesley) (1769-1852), British general & statesman.

WELLS, Herbert George (1866-1946), English novelist.

WERFEL, Franz (1890-1945), German novelist & dramatist (born Prague).

WESLEY, John (1703-1791), English founder of Methodism.

WESTINGHOUSE, George (1846-1914), American inventor.

WHARTON, Edith Newbold (nee Jones) (1862-1937), American novelist.

WHISTLER, James Abbott McNeill (1834-1943), American painter & etcher.

WHITE, William Allen (1888-1944), American journalist.

WHITMAN, Walt (Walter) (1819-1892), American poet.

WHITNEY, Eli (1765-1825), American inventor.

WHITTIER, John Greenleaf (1807-1892), American poet.

WILCOX, Ella (nee Wheeler) (1850-1919), American poet.

WILDE, Oscar Fingal O'Flahertie Wills (1854-1900), Irish dramatist & poet.

WILLIAMS, Roger (1603?-1683), American colonial clergyman (born England), founder of Rhode Island.

WILLKIE, Wendell Lewis (1892-1944), American lawyer & politician.

WISE, Stephen Samuel (1874-1949), American rabbi (born Hungary).

WOLFE, Thomas Clayton (1900-1938), American novelist.

WOLSEY, Thomas (1475?-1530), English prelate & statesman.

WOOD, Grant (1892-1942), American painter.

WOOLF, Adeline Virginia (1882-1941), English novelist.

WOOLLCOTT, Alexander (1887-1943), American author.

WORDSWORTH, William (1770-1850), English poet.

WRIGHT, Orville (1871-1948), American inventor.

WRIGHT, Wilbur (1867-1912), American inventor.

Y

YEATS, William Butler (1865-1939), Irish poet.

YOUNG, Brigham (1801-1877), American Mormon leader.

Z

ZIEGFELD, Florenz (1867-1932), American theatrical producer.

ZOLA, Émile (1840-1902), French novelist.

ZORASTER (or ZARATHUSTRA) (c.6th century B.C.), Persian religious leader.

Rulers of Russia Since 1462

Name	Born	Ruled ¹
Ivan III the Great ²	1440	1462-1505
Basil III ²	1479	1505-1533
Ivan IV the Terrible ³	1530	1533-1584
Theodore I	1557	1584-1598
Boris Godunov	c.1551	1598-1605
Theodore II	1589	1605-1605
Demetrius III ⁴	?	1605-1606
Basil IV Shuiski	?	1606-1610 ⁵
"Time of Troubles" ⁶ .....	.....	1610-1613
Michael Romanov ⁷	1596	1613-1645
Alexis I	1629	1645-1676
Theodore III	1656	1676-1682
Ivan V ⁸	1666	1682-1689 ⁹
Peter I the Great ⁸	1672	1682-1725
Catherine I	c.1684	1725-1727
Peter II	1715	1727-1730
Anna	1693	1730-1740
Ivan VI	1740	1740-1741 ¹⁰

Name	Born	Ruled ¹
Elizabeth	1709	1741-1762
Peter III	1728	1762-1762
Catherine II the Great	1729	1762-1796
Paul I	1754	1796-1801
Alexander I	1777	1801-1825
Nicholas I	1796	1825-1855
Alexander II	1818	1855-1881
Alexander III	1845	1881-1894
Nicholas II	1868	1894-1917 ¹¹

Provisional Government

Prince Georgi Lvov ¹²	1861	1917-1917 ¹³
Alexander Kerensky ¹²	1881	1917-1917 ¹⁴

U.S.S.R.¹⁵

Nikolai Lenin ¹²	1870	1917-1924
Joseph Stalin ¹⁶	1879	1924-

¹ Year of end of rule is also that of death, unless otherwise indicated. ² Grand Duke of Muscovy. ³ First Tsar of Russia; had himself crowned as such in 1547. ⁴ Also known as Pseudo-Demetrius. His origin is obscure. He claimed to be Ivan IV's youngest son, Demetrius, who had been murdered in 1591. Demetrius I conquered Moscow in 1605 but was killed in 1606. From 1607-12, two other men, posing as Demetrius, attempted to conquer Moscow but failed. ⁵ Died 1612. ⁶ During this

period the throne remained empty. ⁷ First of the Romanov line, which lasted until the Russian Revolution. Michael was the grandnephew of Ivan IV. ⁸ Ruled jointly until 1689, at which time Ivan V was deposed. ⁹ Died 1696. ¹⁰ Died 1764. ¹¹ Killed 1918. ¹² Premier. ¹³ Died 1925. ¹⁴ Alive in 1952. ¹⁵ The U.S.S.R. was not formally organized until 1923. ¹⁶ As General Secretary of the Communist party, Stalin was actual head of the Soviet Union from 1924-41. In 1941, he became Premier.

Rulers of England

Saxons ¹			House of York		
Name	Born	Ruled ²	Name	Born	Ruled ²
Egbert ³	c. 775	828-839	Edward IV	1442	1461-1483 ¹³
Ethelwulf	?	839-858	Edward V	1470	1483-1483
Ethelbald	?	858-860	Richard III	1452	1483-1485
Ethelbert	?	860-866			
Ethelred I	?	866-871			
Alfred the Great	849	871-899			
Edward the Elder	c. 870	899-925			
Aethelstan	895	925-939			
Edmund I the Deed-doer ..	921	939-946			
Edred	c. 925	946-955			
Edwy the Fair	c. 943	955-959			
Edgar the Peaceful	943	959-975			
Edward the Martyr	c. 962	975-979			
Ethelred II the Unready ..	868	979-1016			
Edmund II Ironside	c. 993	1016-1016			

Danes		
Canute	995	1016-1035
Harold I Harefoot	c.1016	1035-1040
Hardecanute	c.1018	1040-1042

Saxons		
Edward the Confessor	c.1004	1042-1066
Harold II	c.1020	1066-1066

House of Normandy		
William I the Conqueror ..	1027	1066-1087
William II Rufus	c.1056	1087-1100
Henry I Beaulerc	1068	1100-1135
Stephen of Blois	c.1100	1135-1154

House of Plantagenet		
Henry II	1133	1154-1189
Richard I Coeur de Lion ..	1157	1189-1199
John Lackland	1167	1199-1216
Henry III	1207	1216-1272
Edward I Longshanks	1239	1272-1307
Edward II	1284	1307-1327
Edward III	1312	1327-1377
Richard II	1367	1377-1399 ⁴

House of Lancaster		
Henry IV Bolingbroke	1366	1399-1413
Henry V	1387	1413-1422
Henry VI	1421	1422-1461 ¹³

¹ Dates for Saxon Kings are still subjects of controversy. ² Year of end of rule is also that of death, unless otherwise indicated. ³ Became King of West Saxons in 802; considered (from 828) first King of all England. ⁴ Died 1400. ⁵ Nominal Queen for 9 days; not counted as Queen by some authorities. She was beheaded in 1554.

House of York		
Edward IV	1442	1461-1483 ¹³
Edward V	1470	1483-1483
Richard III	1452	1483-1485

House of Tudor		
Henry VII	1457	1485-1509
Henry VIII	1491	1509-1547
Edward VI	1537	1547-1553
Jane (Lady Jane Grey) ⁵ ..	1537	1553-1553
Mary I ("Bloody Mary") ..	1516	1553-1558
Elizabeth I	1533	1558-1603

House of Stuart		
James I ⁶	1566	1603-1625
Charles I	1600	1625-1649

Commonwealth		
Council of State .....	....	1649-1653
Oliver Cromwell ⁷	1599	1653-1658
Richard Cromwell ⁷	1626	1658-1659 ⁸

House of Stuart (restored)		
Charles II	1630	1660-1685
James II	1633	1685-1688 ⁹
William III ¹⁰	1650	1689-1702
Mary II ¹⁰	1662	1689-1694
Anne	1665	1702-1714

House of Hanover		
George I	1660	1714-1727
George II	1683	1727-1760
George III	1738	1760-1820
George IV	1762	1820-1830
William IV	1765	1830-1837
Victoria	1819	1837-1901

House of Saxe-Coburg ¹¹		
Edward VII	1841	1901-1910

House of Windsor ¹¹		
George V	1865	1910-1936
Edward VIII	1894	1936-1936 ¹²
George VI	1895	1936-1952
Elizabeth II	1926	1952-

⁶ Ruled in Scotland as James VI (1567-1625). ⁷ Lord Protector. ⁸ Died 1712. ⁹ Died 1701. ¹⁰ Joint rulers 1689-1694. ¹¹ Names changed from Saxe-Coburg to Windsor in 1917. ¹² Has been known since his abdication as the Duke of Windsor. ¹³ Henry VI reigned again briefly 1470-71.

Rulers of Prussia and Germany

Kings of Prussia		
Name	Born	Ruled ¹
Frederick I ²	1657	1701-1713
Frederick William I	1688	1713-1740
Frederick II the Great	1712	1740-1786
Frederick William II	1744	1786-1797
Frederick William III	1770	1797-1840
Frederick William IV	1795	1840-1861
William I	1797	1861-1871 ³

Emperors of Germany		
William I	1797	1871-1888
Frederick III	1831	1888-1888
William II	1859	1888-1918 ⁴

¹ Year of end of rule is also that of death, unless otherwise indicated. ² Was Elector of Brandenburg (1688-1701) as Frederick III. ³ Became Emperor of Germany

Heads of the Reich		
Name	Born	Ruled ¹
Friedrich Ebert ⁵	1871	1919-1925
Paul von Hindenburg ⁵	1847	1925-1934
Adolf Hitler ^{6,7}	1889	1934-1945
Karl Doenitz ⁸	1891	1945-1945 ⁹

Federal Republic of Germany (Western)		
Theodor Heuss ⁵	1884	1949-

Democratic Republic Government (Eastern)		
Wilhelm Pieck ⁵	1876	1949-

In 1871. ⁴ Died 1941. ⁵ President. ⁶ Führer. ⁷ Named Chancellor by President Hindenburg in 1933. ⁸ Still alive.

Rulers of France

Carolingian Dynasty

Name	Born	Ruled ¹
Pepin the Short	c. 714	751-768
Charlemagne ²	742	768-814
Louis I the Debonair ³	778	814-840
Charles I the Bald ⁴	823	840-877
Louis II the Stammerer	846	877-879
Louis III ⁵	c. 863	879-882
Carloman ⁶	?	879-884
Charles II the Fat ⁶	839	884-887 ⁷
Eudes (Odo), Count of Paris	?	888-898
Charles III the Simple ⁸	879	893-923 ⁹
Robert I ¹⁰	c. 865	922-923
Rudolf (Raoul), Duke of Burgundy	?	926-936
Louis IV d'Outremer	c. 921	936-954
Lothair	941	954-966
Louis V the Sluggard	c. 966	966-987

Capetian Dynasty

Hugh Capet	c. 940	987-996
Robert II the Pious ¹¹	c. 970	996-1031
Henry I	1008	1031-1060
Phillip I	1052	1060-1108
Louis VI the Fat	1081	1108-1137
Louis VII the Young	c.1121	1137-1180
Phillip II (Phillip Augustus)	1165	1180-1223
Louis VIII the Lion	1187	1223-1226
Louis IX (St. Louis)	1214	1226-1270
Phillip III the Bold	1245	1270-1285
Phillip IV the Fair	1268	1285-1314
Louis X the Quarrel	1289	1314-1316
John I	1316	1316-1316
Phillip V the Tall	1294	1316-1322
Charles IV the Fair	1294	1322-1328

House of Valois

Philip VI	1293	1328-1350
John II the Good	1319	1350-1364
Charles V the Wise	1337	1364-1380
Charles VI the Well-Beloved	1368	1380-1422
Charles VII	1403	1422-1461
Louis XI	1423	1461-1483
Charles VIII	1470	1483-1498
Louis XII the Father of the People	1462	1498-1515
Francis I	1494	1515-1547
Henry II	1519	1547-1559
Francis II	1544	1559-1560
Charles IX	1550	1560-1574
Henry III	1551	1574-1589

House of Bourbon

Henry IV of Navarre	1553	1589-1610
Louis XIII	1601	1610-1643
Louis XIV the Great	1638	1643-1715
Louis XV the Well-Beloved	1710	1715-1774

House of Bourbon (cont'd)

Name	Born	Ruled ¹
Louis XVI	1754	1774-1792 ¹²
Louis XVII (Louis Charles de France) ¹³	1785	1793-1795

First Republic

National Convention	1792-1795
Directory (Directoire)	1795-1799

Consulate

Napoleon Bonaparte ¹⁴	1769	1799-1804
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First Empire

Napoleon I	1769	1804-1815 ¹⁵
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Restoration of House of Bourbon

Louis XVIII le Désiré	1755	1814-1824
Charles X	1757	1824-1830 ¹⁶

Bourbon-Orleans line

Louis Philippe ("Citizen King")	1773	1830-1848 ¹⁷
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Second Republic

Louis Napoleon ¹⁸	1808	1848-1852
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Second Empire

Napoleon III (Louis Napoleon)	1808	1852-1871 ¹⁹
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Third Republic

Louis Adolphe Thiers ²⁰	1797	1871-1873 ²¹
Marie E. P. M. de MacMahon ²⁰	1808	1873-1879 ²²
François P. J. Grévy ²⁰	1807	1879-1887 ²³
Sadi Carnot ²⁰	1837	1887-1894
Jean Casimir-Périer ²⁰	1847	1894-1895 ²⁴
François Félix Faure ²⁰	1841	1895-1899
Émile Loubet ²⁰	1838	1899-1906 ²⁵
Clement Armand Fallières ²⁰	1841	1906-1913 ²⁶
Raymond Poincaré ²⁰	1860	1913-1920 ²⁷
Paul Eugène Louis Deschanel ²⁰	1856	1920-1923 ²⁸
Alexandre Millerand ²⁰	1859	1920-1924 ²⁹
Gaston Doumergue ²⁰	1863	1924-1931 ³⁰
Paul Doumer ²⁰	1857	1931-1932
Albert Lebrun ²⁰	1871	1932-1940 ³¹

Vichy Government

Marshal Henri Philippe Pétain ³²	1856	1940-1944 ³³
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Provisional Government

Charles de Gaulle ³⁴	1890	1944-1946 ³⁵
Félix Gouin ³⁴	1884	1946-1946 ³⁶
Georges Bidault ³⁴	1899	1946-1947 ³⁷

Fourth Republic

Vincent Auriol ²⁰	1884	1947--
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¹ Year of end of rule is also that of death, unless otherwise indicated. ² Crowned Emperor of the West in 800. ³ Holy Roman Emperor 814-840. ⁴ Holy Roman Emperor 875-877 as Charles II. ⁵ Ruled jointly 879-882. ⁶ Holy Roman Emperor 881-887 as Charles III. ⁷ Died 888. ⁸ King 893-898 in opposition to Eudes. ⁹ Died 929. ¹⁰ Not counted in regular line of Kings of France by some authorities. Elected by nobles but killed in Battle of Soissons. ¹¹ Sometimes called Robert I. ¹² Executed 1793. ¹³ Titular King only. He died in prison according to official reports, but many pretenders appeared during the Bourbon restoration. ¹⁴ As First Consul, Napoleon

held the power of government. In 1804, he became Emperor. ¹⁵ Abdicated first time June 1814. Re-entered Paris Mar. 1815, after escape from Elba; Louis XVIII fled to Ghent. Abdicated second time June 1815. He named as his successor his son, Napoleon II, who was not acceptable to the Allies. He died 1821. ¹⁶ Died 1836. ¹⁷ Died 1850. ¹⁸ President; became Emperor in 1852. ¹⁹ Died 1873. ²⁰ President. ²¹ Died 1877. ²² Died 1893. ²³ Died 1891. ²⁴ Died 1907. ²⁵ Died 1929. ²⁶ Died 1931. ²⁷ Died 1934. ²⁸ Died 1922. ²⁹ Died 1942. ³⁰ Died 1937. ³¹ Died 1950. ³² Chief of State. ³³ Died 1951. ³⁴ Interim President. ³⁵ Still alive.

CROSSWORD PUZZLE GUIDE

Since most persons who can read and write occasionally or frequently indulge in the indoor pastime of working crossword puzzles, this section is offered as a handy help to solvers who may be stumped now and then for a two-letter word meaning "three-toed sloth" or a three-letter word meaning "native of Mindanao."

We have those two words here, and plenty more. We have the Greek, Roman, Norse and Egyptian deities of myth and legend. And we have those "Greek letters" and "months of the Jewish year" so often needed to fill out little gaps in a crossword solution.

The reader is warned that in mythology there are many confusing and even conflicting accounts of the identities and adventures of the various gods, goddesses and lesser figures. There is also considerable variation in the spelling of names, places and things. For instance, you may spell it ICON, IKON or EIKON, and similar options are plentiful all along the crossword line. If the reader will keep further possible variations in mind, it may help at a critical point in some crossword puzzle. Good hunting!

JOHN KIERAN, *Editor*

First Aid to Crossword Puzzlers

(We cannot, of course, begin to list all the odd words you will meet with in your daily and Sunday crossword puzzles, for such words run into many thousands. But we have tried to include those which turn up most frequently, as well as many others which should be of help to you when you are unable to go any further.)

Also, we do not guarantee that the definitions in your puzzle will be exactly the same as ours, although we have checked every word with a standard dictionary and have followed its definition.

In nearly every case, we have used as the key word the principal noun of the definition, rather than any adjective, adjective phrase, or noun used as an adjective. And, to simplify your searching, we have grouped the words according to the number of spaces you have to fill.)

Words of Two Letters

Ambary, DA
And (French, Latin), ET
Article (Arabic), AL
(French), LA, LE, UN
(Spanish), EL, LA, UN
At the (French), AU
(Spanish), AL
Behold, LO
Bird: Hawaiian, OO
Birthplace: Abraham's, UR
Bone, OS
Buddha, FO
Butterfly: Peacock, IO
Champagne, AY
Chaos, NU
Chief: Burmese, BO
Coin: Roman, AS
Slamese, AT
Concerning, RE
Dialect: Chinese, WU
Double (Egy. relig.), KA
Drama: Japanese, NO
Egg (comb. form), OO
Esker, OS
Eye (Scotch), EE
Factor: Amplification, MU
Fifty (Greek), NU
Fish: Carplike, ID
Force, OD
Forty (Greek), MU
From (French, Latin, Spanish), DE
(Latin prefix), AB

From the (French), DU
God: Babylonian, EA, ZU
Egyptian sun, RA
Hindu unknown, KA
Semitic, EL
Goddess: Babylonian, AI
Greek earth, GE
Gold (heraldry), OR
Gulf: Arctic, OB
Heart (Egy. relig.) AB
Indian: South American, GE
King: Of Bashan, OG
Language: Artificial, RO
Assamese, AO
Lava: Hawaiian, AA
Letter: Greek, MU, NU, PI, XI
Hebrew, HE, PE
Lily: Palm, TI
Measure: Annamese, LY
Chinese, HO, HU, KO, LI, MU, PU, TO, TU
Japanese, GO, JO, MO, RI, SE, TO
Metric land, AR
Netherlands, EL
Portuguese, PE
Slamese, WA
Swedish, AM
Type, EM, EN
Monk: Buddhist, BO

Month: Jewish, AB
Mouth, OS
Mulberry: Indian, AL
Native: Burmese, WA
Note: Of Scale, DO, FA, MI, LA, RE, TI
Of (French, Latin, Spanish), DE
Of the (French), DU
One (Scotch), AE
Pagoda: Chinese, TA
Plant: East Indian fiber, DA
Ridge: Sandy, AS, OS
River: Russian, OB
Sloth: Three-toed, AI
Soul (Egy. relig.), BA
Sound: Hindu mystic, OM
Suffix: Comparative, ER
The. See Article
To the: French, AU
Spanish, AL
Tree: Buddhist sacred, BO
Tribe: Assamese, AO
Type: Jumbled, PI
Weight: Annamese, TA
Chinese, LI
Danish, ES
Japanese, MO
Roman, AS
Whirlwind: Faeroe Is., OE
Yes (German), JA
(Italian, Spanish), SI
(Russian), DA

Words of Three Letters

- Adherent, IST
 Again, BIS
 Age, ERA
 Antelope: African, GNU, KOB
 Apricot: Japanese, UME
 Article (German), DAS, DEM, DEN, DER, DES, DIE, EIN
 (French), LES, UNE
 (Spanish), LAS, LOS, UNA
 Banana: Polynesian, FEI
 Barge, HOY
 Bass: African, IYO
 Beak, NEB, NIB
 Beard: Grain, AWN
 Beetle: June, DOR
 Being, ENS
 Berry: Hawthorn, HAW
 Beverage: Hawaiian, AVA
 Bird: Australian, EMU
 Crowlike, JAY
 Extinct, MOA
 Fabulous, ROC
 Frigate, IWA
 Parson, POE, TUE, TUI
 Sea, AUK
 Blackbird, ANI, ANO
 Born, NEE
 Bronze: Roman, AES
 Bugle: Yellow, IVA
 By way of, VIA
 Canton: Swiss, URI
 Cap: Turkish, FEZ
 Catnip, NEP
 Character: In "Faerie Queen," UNA
 Coin: Afghan, PUL
 Albanian, LEK
 British Guiana, BIT
 Bulgarian, LEV, LEW
 French, ECU, SOU
 Indian, PIE
 Japanese, SEN, YEN
 Korean, WON
 Lithuanian, LIT
 Macao, Timor, AVO
 Palestinian, MIL
 Persian, PUL
 Peruvian, SOL
 Rumanian, BAN, LEU, LEY
 Scandinavian, ORE
 Siamese, ATT
 See also Money of account
 Collection: Facts, ANA
 Commune: Belgian, ANS, ATH
 Netherlands, EDE, EFE
 Community: Russian, MIR
 Constellation: Southern, ARA
 Contraction: Poetic, EEN, EER, OER
 Covering: Apex of roof, EPI
- Crab: Fiddler, UCA
 Crag: Rocky, TOR
 Cry: Crow, rook, raven, CAW
 Cup: Wine, AMA
 Cymbal: Oriental, TAL, ZEL
 Disease: Silkworm, UJI
 Division: Danish territorial, AMT
 Geologic, EON
 Doctrine, ISM
 Dowry, DOT
 Dry (French), SEC
 Dynasty: Chinese, CHI, HAN, SUI, WEI, YIN
 Eagle: Sea, ERN
 Earth (comb. form), GEO
 Egg: Louse, NIT
 Eggs: Fish, ROE
 Emmet, ANT
 Enzyme, ASE
 Equal (comb. form), ISO
 Extension: building, ELL
 Far (comb. form), TEL
 Farewell, AVE
 Fiber: Palm, TAL
 Finial, EPI
 Fish: Carplike, IDE
 Pikelike, GAR
 Flatfish, DAB
 Fleur-de-lis, LIS, LYS
 Food: Hawaiian, POI
 Formerly, NEE
 Friend (French), AMI
 Game: Card, LOO
 Garment: Camel-hair, ABA
 Gateway, DAR
 Gazelle: Tibetan, GOA
 Genus: Ducks, AIX
 Grasses, POA
 Grasses (maize), ZEA
 Herbs or shrubs, IVA
 Lizards, UTA
 Rodents (incl. house mice), MUS
 Ruminants (incl. cattle), BOS
 Swine, SUS
 Gibbon: Malay, LAR
 God: Assyrian, SIN
 Babylonian, ABU, ANU, BEL, HEA, SIN, UTU
 Irish sea, LER
 Phrygian, MEN
 Polynesian, ORO
 Goddess: Babylonian, AYA
 Etruscan, UNI
 Hindu, SRI, UMA, VAC
 Teutonic, RAN
 Governor: Algerian, DEY
 Turkish, BEY
 Grampus, ORC
 Grape, UVA
 Grass: Meadow, POA
 Gypsy, ROM
 Hall, AVE
 Hare: Female, DOE
- Hawthorn, HAW
 Hay: Spread for drying, TED
 Herb: Japanese, UDO
 Perennial, PIA
 Used for blue dye, WAD
 Herd: Whales, GAM, POD
 Hero: Spanish, CID
 High (music), ALT
 Honey (pharm.), MEL
 Humorist: American, ADE
 I (Latin), EGO
 I love (Latin), AMO
 Indian: Algonquian, FOX, SAC, WEA
 Chimakuan, HOH
 Keresan, SIA
 Mayan, MAM
 Shoshonean, UTE
 Siouan, KAW, OTO
 South American, ITE, ONA, URO, URU, YAO
 Tierra del Fuego, ONA
 Wakashan, AHT
 Ingot, PIG
 Inlet: Narrow, RIA
 Island: Cyclades, IOS
 Dodecanese, COS, KOS (French), ILE
 River, AIT
 Jackdaw, DAW
 John (Gaelic), IAN
 Keelbill, ANI, ANO
 Kiln, OST
 King: British legendary, LUD
 Kobold, NIS
 Lace: To make, TAT
 Lamprey, EEL
 Language: Artificial, IDO
 Bantu, ILA
 Siamese, LAO, TAI
 Leaf: Palm, OLA, OLE
 Leaving, ORT
 Left: Cause to turn, HAW
 Letter: Greek, CHI, ETA, PHI, PSI, RHO, TAU
 Hebrew, MEM, NUN, SIN, TAV, VAU
 Lettuce, COS
 Life (comb. form), BIO
 Lily: Palm, TOI
 Lizard, EFT
 Louse: Young, NIT
 Love (Anglo-Irish), GRA
 Lute: Oriental, TAR
 Macaw: Brazilian, ARA
 Marble, TAW
 Match: Shooting (French), TIR
 Meadow, LEA
 Measure: Abyssinian, TAT
 Algerian, PIK
 Annamese, GON, MAU, NGU, QUO, SAO, TAO, TAT
 Arabian, DEN, SAA

- Belgian, VAT
 Bulgarian, OKA, OKE
 Chinese, FEN, TOU, YIN
 Cloth, ELL
 Cyprus, OKA, OKE, PIK
 Czech, LAN, SAH
 Danish, FOD, MIL, POT
 Dominican Republic, ONA
 Dutch, old, AAM
 East Indian, KIT
 Egyptian, APT, HEN, PIK,
 ROB
 Electric, MHO, OHM
 Energy, ERG
 English, PIN
 Estonian, TUN
 French, POT
 German, AAM
 Greek, PIK
 Hebrew, CAB, HIN, KOR,
 LOG
 Hungarian, AKO
 Icelandic, FET
 Indian, GAZ, GUZ, JOW,
 KOS
 Japanese, BOO, CHO,
 KEN, RIN, SHO, SUN,
 TAN
 Malabar, ADY
 Metric land, ARE
 Netherlands, KAN, KOP,
 MUD, VAT, ZAK
 Norwegian, FOT, POT
 Persian, GAZ, GUZ, MOU,
 ZAR, ZER
 Polish, CAL
 Rangoon, DHA, LAN
 Roman, PES, URN
 Russian, FUT, LOF
 Scotch, COP
 Siamese, KEN, NIU, RAI,
 SAT, SEN, SOK, WAH,
 YOT
 Somaliland, TOP
 Spanish, PIE
 Straits Settlements, PAU,
 TUN
 Swedish, ALN, FOT, MIL,
 REF, TUM
 Swiss, POT
 Tunisian, SAA
 Turkish, OKA, OKE, PIK
 Wire, MIL
 Württemberg, IMI
 Yarn, LEA
 Yugoslavian, OKA, RIF
 Milk, LAC
 Milkfish, AWA
 Moccasin, PAC
 Money: Yap stone, FEI
 Money of Account: Anglo-
 Saxon, ORA, ORE
 French, SOU
 Indian, LAC
 Japanese, RIN
 Oman, GAJ
 Virgin Islands, BIT
 See also Coin
- Monkey: Capuchin, SAI
 Morsel, ORT
 Mother: Peer Gynt's, ASE
 Mountain: Asia Minor, IDA
 Mulberry: Indian, AAL,
 ACH, AWL
 Muttonbird: New Zealand,
 OII
 Nahoor, SNA
 Native: Mindanao, ATA
 Neckpiece, BOA
 Newt, EFT
 No (Scotch), NAE
 Note: Guido's highest, ELA
 Of scale, SOL
 Nursemaid: Oriental, AMA,
 IYA
 Ocher: Yellow, SIL
 One (Scotch), YIN
 Ornament: Pagoda, TEE
 Oven: Polynesian, UMU
 Ox: Tibetan, YAK
 Pagoda: Chinese, TAA
 Parrot: Hawk, HIA
 New Zealand, KEA
 Part: Footlike, PES
 Particle: Electrified, ION
 Pasha, DEY
 Pass: Mountain, COL
 Paste: Rice, AME
 Pea: Indian split, DAL
 Peasant: Philippine, TAO
 Penpoint, NEB, NIB
 Piece out, EKE
 Pigeon, NUN
 Pine: Textile screw, ARA
 Pistol (slang), GAT
 Pit: Baking, IMU
 Plant: Pepper, AVA
 Play: By Capek, RUR
 Poem: Old French, DIT
 Porgy: Japanese, TAI
 Priest: Biblical high, ELI
 Prince: Ethiopian, RAS
 Pseudonym: Dickens', BOZ
 Queen: Fairy, MAB
 Quince: Bengal, BEL
 Record: Ship's, LOG
 Refuse: Flax (Scotch), PAB,
 POB
 Resin, LAC
 Resort, SPA
 Revolver (slang), GAT
 Right: Cause to turn, GEE
 River: Scotch or English,
 DEE (Spanish), RIO
 Swiss, AAR
 Room: Harem, ODA
 Rootstock: Fern, ROI
 Rose (Persian), GUL
 Ruff: Female, REE
 Rule: Indian, RAJ
 Sailor, GOB, TAR
 Saint: Female (abbr.), STE
 Mohammedan, PIR
 Salt, SAL
 Sash: Japanese, OBI
 Scrap, ORT
- Seed: Poppy, MAW
 Small, PIP
 Self, EGO
 Serpent: Vedic sky, AHI
 Sesame, TIL
 Sheep: Female, EWE
 Indian, SHA
 Male, RAM
 Sheepfold (Scotch), REE
 Shelter, LEE
 Shield, ECU
 Shooting match (French),
 TIR
 Shrew: European, ERD
 Shrub: Evergreen, YEW
 Silkworm, ERI
 Snake, ASP, BOA
 Soak, RET
 Son-in-law: Mohammed's,
 ALI
 Sorrel: Wood, OCA
 Spade: Long, narrow, LOY
 Spirit: Malignant, KER
 Spot: Playing-card, PIP
 Spread for drying, TED
 Spring: Mineral, SPA
 Sprite: Water, NIX
 Statesman: Japanese, ITO
 Stern: Toward, AFT
 Stomach: Bird's, MAW
 Street (French), RUE
 Summer (French), ETE
 Sun, SOL
 Swamp, BOG, FEN
 Swan: Male, COB
 Tea: Chinese, CHA
 Temple: Shinto, SHA
 The. See Article
 Thing (law), RES
 Title: Etruscan, LAR
 Monk's, FRA
 Portuguese, DOM
 Spanish, DON
 Turkish, AGA, BEY
 Tool: Cutting, ADZ, AXE
 Mining, GAD
 Piercing, AWL
 Tree: Candelnut, AMA
 Central American, EBO
 East Indian, SAJ, SAL
 Evergreen, YEW
 Hawaiian, KOA, KOU
 Indian, BEL, DAR
 Linden, LIN
 New Zealand, AKE
 Philippine, DAO, TUA,
 TUI
 Rubber, ULE
 South American, APA
 Tribe: New Zealand, ATI
 Tumeric, REA
 Twice, BIS
 Twin: Siamese, ENG
 Uncle (dialect), EAM, EME
 Veil: Chalice, AER, AIR
 Vessel: Wine, AMA
 Vestment: Ecclesiastical,
 ALB

Vetch: Bitter, ERS
 Victorfish, AKU
 Vine: New Zealand, AKA
 Philippine, IYO
 Wallaba, APA
 Wapiti, ELK
 Water (French), EAU
 Waterfall, LIN
 Watering place: Prussian,
 EMS
 Weave: Designating plain,
 UNI
 Weight: Annamese, CAN
 Bulgarian, OKA, OKE
 Burmese, MOO, VIS
 Chinese, FEN, HAO, KIN,
 SSU, TAN, YIN

Cyprus, OKA, OKE
 Danish, LOD, ORT, VOG
 East Indian, TJI
 Egyptian, KAT, OKA, OKE
 English, for wool, TOD
 German, LOT
 Greek, MNA, OKA, OKE
 Indian, SER
 Japanese, FUN, KIN, RIN,
 SHI
 Korean, KON
 Malacca, KIP
 Mongolian, LAN
 Netherlands, ONS
 Norwegian, LOD
 Polish, LUT
 Rangoon, PAI
 Roman, BES

Russian, LOT
 Siamese, BAT, HAP, PAI
 Swedish, ASS, ORT
 Turkish, OKA, OKE
 Yugoslavian, OKA, OKE
 Whales: Herd, GAM, POD
 Wildebeest, GNU
 Wing, ALA
 Witticism, MOT
 Wolframite, CAL
 Worm: African, LOA
 Wreath: Hawaiian, LEI
 Yale, ELI
 Yam: Hawaiian, HOI
 Yes (French), OUI
 Young: Bring forth, EAN
 Z (letter), ZED

Words of Four Letters

Aborigine: Borneo, DYAK
 Agave, ALOE
 Animal: Footless, APOD
 Ant: White, ANAI, ANAY
 Antelope: African, ASSE,
 BISA, GUIB, KOBA,
 KUDU, ORYX, POKU,
 PUKU, TOPI, TORA
 Apoplexy: Plant, ESCA
 Apple, POME
 Apricot, ANSU
 Arden, ELAN
 Armadillo, APAR, PEBA,
 PEVA, TATU
 Ascetic: Mohammedan,
 SUFU
 Association: Chinese, TONG
 Astronomer: Persian, OMAR
 Avatar: Of Vishnu, RAMA
 Axillary, ALAR
 Band: Horizontal (herald-
 dry), FESS
 Barracuda, SPET
 Bark: Mulberry, TAPA
 Base: Column, DADO
 Bearing (heraldry), ORLE
 Beer: Russian, KVAS
 Belge, ECRU
 Being, ESSE
 Beverage: Japanese rice,
 SAKE
 Bird: Asian, MINA, MYNA
 Egyptian sacred, IBIS
 Extinct, DODO, MAMO
 Flightless, KIWI
 Gull-like, TERN
 Hawaiian, IWI, MAMO
 Parson, KOKO
 Unfledged, EYAS
 Birds: As class, AVES
 Black, EBON
 (French), NOIR
 Blackbird: European, MERL
 Boat: Flat-bottomed, DORY
 Bone: Forearm, ULNA
 Bones, OSSA
 Box: Japanese, INRO
 Bravo (rare), EUGE

Buffalo: Indian wild, ARNA
 Bull (Spanish), TORO
 Burden, ONUS
 Cabbage: Sliced, SLAW
 Caliph: Mohammedan,
 OMAR
 Canoe: Malay, PRAU, PROA
 Cap: Military, KEPI
 Cape, NESS
 Capital: Ancient Irish,
 TARA
 Case: Article, ETUI
 Cat: Wild, BALU, EYRA
 Chalcid, SARD
 Chamber: Indian ceremon-
 nial, KIVA
 Channel: Brain, ITER
 Cheese: Dutch, EDAM
 Chest: Sepulchral stone,
 CIST
 Chieftain: Arab, EMIR
 Church: Part of, APSE,
 NAVE
 (Scotch), KIRK
 Claim (law), LIEN
 Cluster: Flower, CYME
 Coin: Chinese, TAEI, YUAN
 German, MARK
 Indian, ANNA
 Iranian, RIAL
 Italian, LIRA
 Moroccan, OKIA
 Siamese, BAHT
 South American, PESO
 Spanish, DURO, PESO
 Turkish, PARA
 Commune: Belgian, AATH
 Composition: Musical,
 OPUS
 Compound: Chemical, DIOL
 Constellation: Southern,
 PAVO
 Council: Russian, DUMA
 Counsel, REDE
 Covering: Seed, ARIL
 Cross: Egyptian, ANKH
 Cry: Bacchanalian, EVOE
 Cup (Scotch), TASS

Cupbearer, SAKI
 Dagger, DIRK
 Malay, KRIS
 Dam: River, WEIR
 Dash, ELAN
 Date: Roman, IDES
 Dawn: Pertaining to, EOAN
 Dean: English, INGE
 Decay: In fruit, BLET
 Deer: Sambar, MAHA
 Disease: Skin, ACNE
 Disk: Solar, ATEN
 Dog: Hunting, ALAN
 Drink: Hindu intoxicating,
 SOMA
 Duck, SMEE, SMEW, TEAL
 Dynasty: Chinese, CHEN,
 CHIN, CHOU, CHOW,
 HSIA, MING, SUNG,
 TANG, TSIN
 Mongol, YUAN
 Eagle: Biblical, GIER
 Sea, ERNE
 Egyptian: Christian, COPT
 Ear: Pertaining to, OTIC
 Entrance: Mine, ADIT
 Esau, EDOM
 Escutcheon: Voided, ORLE
 Eskers, OSAR
 Evergreen: New Zealand,
 TAWA
 Fairy: Persian, PERI
 Family: Italian, ESTE
 Far (comb. form), TELE
 Farewell, VALE
 Father (French), PERE
 Fennel: Philippine, ANIS
 Fever: Malarial, AGUE
 Fiber: East Indian, JUTE
 Firn, NEVE
 Fish: Carplike, DACE
 Hawaiian, ULUA
 Herringlike, SHAD
 Mackerellike, CERO
 Marine, HAKE
 Sea, LING, MERO, OPAH
 Spiny-finned, GOBY
 Food: Tropical, TARO

Foot: Metric, IAMB
Formerly, ERST
Founder: Of Carthage,
DIDO
France: Southern, MIDI
Furze, ULEX
Gaelic, ERSE
Gaiter, SPAT
Game: Card, FARO, SKAT
Garlic: European wild,
MOLY
Garment: Hindu, SARI
Roman, TOGA
Gazelle, CORA
Gem, JADE, ONYX, OPAL,
RUBY
Genus: Amphibians (incl.
frogs), RANA
Amphibians (incl. tree
toads), Hyla
Antelopes, ORYX
Auks, ALCA, URIA
Bees, APIS
Birds (American os-
triches), RHEA
Birds (cranes), GRUS
Birds (magpies), PICA
Birds (peacocks), PAVO
Cetaceans, INIA
Ducks (incl. mallards),
ANAS
Fish (burbots), LOTA
Fishes (incl. bowfins),
AMIA
Genus: Geese (snow geese),
CHEN
Gulls, XEMA
Herbs, ARUM, GEUM
Insects (water scorpions),
NEPA
Lilies, ALOE
Mammals (mankind),
HOMO
Orchids, DISA
Owls, ASIO, BUBO, OTUS
Palms, NIPA
Sea birds, SULA
Sheep, OVIS
Shrubs, Eurasian, ULEX
Shrubs (hollies), ILEX
Shrubs (incl. Virginia
Willow), ITEA
Shrubs, tropical, EVEA
Snakes (sand snakes),
ERYX
Swans, OLOR
Trees, chocolate, COLA
Trees (ebony family),
MABA
Trees (incl. maples),
ACER
Trees (Olives), OLEA
Trees, tropical, EVEA
Turtles, EMTS
Goat: Wild, IBEX, KRAS,
TAHR, TAIR, THAR
God: Assyrian, ASUR

Babylonian, ADAD, ADDU,
ENKI, ENZU, IRRA,
NABU, NEBO, UTUG
Celtic, LLEU, LLEW
Hindu, AGNI, CIVA,
DEVA, DEWA, KAMA,
RAMA, SIVA, VAYU
Phrygian, ATYS
Semitic, BAAL
Teutonic, HLER
Goddess: Babylonian, ERUA,
GULA
Hawalian, PELE
Hindu, DEVI, KALI, SHRI,
VACH
Gooseberry: Hawaiian,
POHA
Gourd, PEPO
Grafted (heraldry), ENTE
Grandfather (obsolete),
AIEL
Grandparents: Pertaining
to, AVAL
Grass: Hawaiian, HILO
Gray (French), GRIS
Green (heraldry), VERT
Groom: Indian, SYCE
Half (prefix), DEMI, HEMI,
SEMI
Hamlet, DORP
Hammer-head: Part of,
PEEN
Handle, ANSA
Harp: Japanese, KOTO
Hartebeest, ASSE, TORA
Hautboy, OBOE
Hawk: Taken from nest
(falconry), EYAS
Hearing (law), OYER
Heater: For liquids, ETNA
Herb: Aromatic, ANET,
DILL
Fabulous, MOLY
Perennial, GEUM, SEGO
Pot, WORT
Used for blue dye, WADE,
WOAD
Hill: Flat-topped, MESA
Sand, DENE, DUNE
Hoarfrost, RIME
Hog: Immature female,
CHLT
Holly, ILEX
House: Cow, BYRE
(Spanish), CASA
Ice: Floating, FLOE
Image, ICON, IKON
Incarnation: Of Vishnu,
RAMA
Indian: Algonquian, CREE,
SAUK
Central American, MAYA
Iroquoian, ERIE
Mexican, CORA
Peruvian, CANA, INCA,
MORO
Shoshonean, HOPI
Siouan, OTOE

Southwestern, HOPI,
PIMA, YUMA, ZUNI
Insect: Immature, PUPA
Instrument: Stringed,
LUTE, LYRE
Ireland, EIRE, ERIN
Jacket: English, ETON
Jail (British), GAOL
Jar, OLLA
Judge: Mohammedan, CADI
Juniper: European, CADE
Kiln, OAST, OVEN
King: British legendary,
LUDD, NUDD
Kiss, BUSS
Knife: Philippine, BOLO
Koran: Section of, SURA
Laborer: Spanish American,
PEON
Lake: Mountain, TARN
(Scotch), LOCH
Lamp: Miner's, DAVY
Landing place: Indian,
GHAT
Language: Buddhist, PALI
Japanese, AINU
Latvian, LETT
Layer: Of iris, UVEA
Leaf: Palm, OLAY, OLLA
Legislature: Ukrainian,
RADAR
Lemur, LORI
Leopard, PARD
Let it stand, STET
Letter: Greek, BETA, IOTA,
ZETA
Hebrew, AYIN, BETH,
CAPH, KOPH, RESH,
SHIN, TETH, YODH
Papal, BULL
Lily, ALOE
Literature: Hindu sacred,
VEDA
Lizard, GILA
Monitor, URAN
Loquat, BIWA
Magistrate: Genoese or Ve-
netian, DOGE
Man (Latin), HOMO
Mark: Omission, DELE
Marmoset: South American,
MICO
Meadow: Fertile, VEGA
Measure: Electric, VOLT,
WATT
Force, DYNE
Hebrew, OMER
Printing, PICA
Spanish or Portuguese,
VARA
Swiss land, IMMI
Medley, OLIO
Merganser, SMEW
Milk (French), LAIT
Molding, GULA
Curved, OGEE
Mongoose: Crab-eating,
URVA

- Monk: Tibetan, LAMA
 Monkey: African, MONA,
 WAAG
 Ceylonese, MAHA
 Cochin-China, DOUC
 South American, SAKI,
 TITI
 Monkshood, ATIS
 Month: Jewish, ADAR,
 ELUL, IYAR
 Mother (French), MERE
 Mountain: Thessaly, OSSA
 Mouse: Meadow, VOLE
 Mythology: Norse, EDDA
 Nail (French), CLOU
 Native: Philippine, MORO
 Nest: Of pheasants, NIDE
 Network, RETE
 No (German), NEIN
 Noble: Mohammedan, AMIR
 Notice: Death, OBIT
 Novel: By Zola, NANA
 Nursemaid: Oriental,
 AMAH, AYAH, EYAH
 Nut: Philippine, PILI
 Oak: Holm, ILEX
 Oil (comb. form), OLEO
 Ostrich: American, RHEA
 Oven, KILN, OAST
 Owl: Barn, LULU
 Ox: Celebes wild, ANOE
 Extinct wild, URUS
 Palm, ATAP, NIPA, SAGO
 Parliament, DIET
 Parrot: New Zealand, KAKA
 Pass: Indian mountain,
 GHAT
 Passage: Closing (music),
 CODA
 Peach: Clingstone, PAVY
 Peasant: Indian, RYOT
 Old English, CARL
 Pepper: Australasian, KAVA
 Perfume, ATAR
 Persia, IRAN
 Person: Extraordinary,
 ONER
 Pickerel or pike, ESOX
 Pitcher, EWER
 Plant: Aromatic, NARD
 Century, ALOE
 Indigo, ANIL
 Pepper, KAVA
 Platform: Raised, DAIS
 Plum: Wild, SLOE
 Pods: Vegetable, OKRA,
 OKRO
 Poem: Epic, EPOS
 Poet: Persian, OMAR
 Roman, OVID
 Poison, BANE
 Arrow, INEE
 Porkfish, SISI
 Portico: Greek, STOA
 Premium, AGIO
 Priest: Mohammedan,
 IMAM
 Prima donna, DIVA
 Prong: Fork, TINE
 Pseudonym: Lamb's, ELIA
 Queen: Carthaginian, DIDO
 Hindu, RANI
 Rabbit, CONY
 Race: Of Japan, AINU
 Rail: Ducklike, COOT
 North American, SORA
 Redshank, CLEE
 Refuse: After pressing,
 MARC
 Regiment: Turkish, ALAI
 Reliquary, ARCA
 Resort: Italian, LIDO
 Ridges: Sandy, ASAR, OSAR
 River: German, ELBE,
 ODER
 Italian, ADDA
 Siberian, LENA
 Road: Roman, ITER
 Rockfish: California, RENA
 Rodent: Mouselike, YOLE
 South American, PACA
 Rootstock, TARO
 Salamander, NEWT
 Salmon: Silver, COHO
 Young, PARR
 Same (Greek), HOMO
 (Latin), IDEM
 Sauce: Fish, ALEC
 School: English, ETON
 Seaweed, AGAR, ALGA,
 KELP
 Secular, LAIC
 Sediment, SILT
 Seed: Dill, ANET
 Of vetch, TARE
 Serf, ILOT
 Sesame, TEEL
 Settlement: Eskimo, ETAH
 Shark: Atlantic, GATA
 European, TOPE
 Sheep: Wild, UDAD
 Sheltered, ALEE
 Shield, EGIS
 Ship: Jason's, ARGO
 Left side of, PORT
 Two-masted, BRIG
 Shrine: Buddhist, TOPE
 Shrub: New Zealand, TUTU
 Sign: Magic, RUNE
 Silkworm, ERIA
 Skin: Beaver, PLEW
 Skink: Egyptian, ADDA
 Slave, ESNE
 Sloth: Two-toed, UNAU
 Smooth, LENE
 Snow: Glacial, NEVE
 Soapstone, TALC
 Society: African secret,
 EGBO, PORO
 Son: Of Seth, ENOS
 Song (German), LIED
 Unaccompanied, GLEE
 Sound: Lung, RALE
 Sow, ACID
 Sow: Young, GILT
 Spike: Brad-shaped, BROB
 Spirit: Buddhist evil, MARA
 Stake: Poker, ANTE
 Star: Temporary, NOVA
 Starch: East Indian, SAGO
 Stone: Precious, OPAL
 Strap: Bridle, REIN
 Strewn (heraldry), SEME
 Sweetshop, ATEs, ATTA
 Sword: Fencing, EPEE, FOIL
 Tambourine: African, TAAR
 Tapir: Brazilian, ANTA
 Tax, CESS
 Tea: South American,
 MATE
 Therefore (Latin), ERGO
 Thing: Extraordinary,
 ONER
 Three (dice, cards, etc.),
 TREY
 Thrush: Hawaiian, OMAO
 Tide, NEAP
 Tipster: Racing, TOUT
 Tissue, TELA
 Title: Etruscan, LARS
 Hindu, BABU
 Indian, RAJA
 Mohammedan, EMIR,
 IMAM
 Persian, BABA
 Spanish, DONA
 Turkish, AGHA, BABA
 Toad: Largest known, AGUA
 Tree, HYL A
 Tool: Cutting, ADZE
 Track: Deer, SLOT
 Tract: Sandy, DENE
 Tree: Apple, SORB
 Central American, EBOE
 East Indian, TEAK
 Eucalyptus, YATE
 Guiana and Trinidad,
 MORA
 Javanese, UPAS
 Linden, LIME, LINN,
 TEIL, TILL
 Sandarac, ARAR
 Sassafras, AGUE
 Tamarisk salt, ATLE
 Tribe: Moro, SULU
 Trout, CHAR
 Urchin: Street, ARAB
 Vessel: Arab, DHOW
 Vestment: Ecclesiastical,
 COPE
 Vetch, TARE
 Vine: East Indian, SOMA
 Violinist: Famous, AUER
 Vortex, EDDY
 Wampum, PEAG
 Wapiti, STAG
 Waste: Allowance for, TRET
 Watchman: Indian, MINA
 Water (Spanish), AGUA
 Waterfall, LINN
 Wavy (heraldry), ONDE,
 UNDE
 Wax, CERE
 Chinese, PELA

Weed: Biblical, TARE
 Weight: Ancient, MINA
 Danish (pl.), ESER
 East Asian, TAEI
 Greek, MINA
 Siamese, BAHT
 Well done (rare), EUGE
 Whale, CETE

Killer, ORCA
 White, HUSE, HUSO
 Whirlpool, EDDY
 Wife: Of Geraint, ENID
 Willow: Virginia, ITEA
 Wine, PORT
 Winged, ALAR
 (Heraldry), AILE

Wings, ALAE
 Withered, SERE
 Without (French), SANS
 Wool: To comb, CARD
 Work, OPUS
 Wrong: Civil, TORT
 Young: Bring forth, YEAN

Words of Five Letters

Abode of dead: Babylonian, ARALU
 Aborigine: Borneo, DAYAK
 Aftersong, EPODE
 Aloe, AGAVE
 Animal: Footless, APODE
 Ant, EMMET
 Antelope: African, ADDAX, BEISA,
 CAAMA, ELAND, GUIBA, ORIBI,
 TIANG
 Goat, GORAL, SEROW
 Indian, SASIN
 Siberian, SAIGA
 Arch: Pointed, OGIVE
 Armadillo, APARA, POYOU, TATOU
 Arrowroot, ARARU
 Artery: Trunk, AORTA
 Association: Russian, ARTEL
 Secret, CABAL
 Author: English, READE
 Automaton, GOLEM, ROBOT
 Award: Motion-picture, OSCAR
 Basket: Fishing, CREEL
 Beer: Russian, KVAAS
 Bible: Mohammedan, KORAN
 Bird: Asian, MINAH, MYNAH
 Indian, SHAMA
 Larklike, PIPIT
 Loonlike, GREBE
 Oscine, VIREO
 South American, AGAMI
 Swimming, GREBE
 Black: (French), NOIRE
 (Heraldry), SABLE
 Blackbird: European, MERLE, OUSEL,
 OUZEL
 Block: Glacial, SERAC
 Blue (heraldry), AZURE
 Boat: Eskimo, BIDAR, UMIK
 Bobwhite, COLIN, QUAIL
 Bone (comb. form), OSTEO
 Leg, TIBIA
 Thigh, FEMUR
 Broom: Twig, BESOM
 Brother (French), FRERE
 Moses', AARON
 Canoe: Eskimo, BIDAR, KAYAK
 Cape: Papal, FANON, ORALE
 Caravansary, SERAI
 Card: Old playing, TAROT
 Caterpillar: New Zealand, AWETO
 Catkin, AMENT
 Cavity: Stone, GEODE
 Cephalopod, SQUID
 Cetacean, WHALE
 Chariot, ESSED
 Cheek: Pertaining to, MALAR
 Chieftain: Arab, EMEER
 Child (Scotch), BAIRN

Cigar, CLARO
 Coating: Seed, TESTA
 Cockatoo: Palm, ARARA
 Coin: Costa Rican, COLON
 Danish, KRONE
 Ecuadorian, SUCRE
 English, GROAT, PENCE
 French, FRANC
 German, KRONE, TALER
 Hungarian, PENGÓ
 Icelandic, KRONA
 Indian, RUPEE
 Iraqi, DINAR
 Norwegian, KRONE
 Polish, ZLOTY
 Russian, COPEC, KOPEK, RUBLE
 Swedish, KRONA
 Turkish, ASPER
 Yugoslav, DINAR
 Collar: Papal, FANON, ORALE
 Roman, RABAT
 Commune: Italian, TREIA
 Composition: Choral, MOTET
 Compound: Chemical, ESTER
 Conceal (law), ELOIN
 Council: Ecclesiastical, SYNOD
 Court: Anglo-Saxon, GEMOT
 Inner, PATIO
 Crest: Mountain, ARETE
 Crown: Papal, TIARA
 Cuttlefish, SEPIA
 Date: Roman, NONES
 Decree: Mohammedan, IRADE
 Russian, UKASE
 Deposit: Loam, LOESS
 Desert: Gobi, SHAMO
 Devilfish, MANTA
 Disease: Cereals, ERGOT
 Disk, PATEN
 Dog: Australian wild, DINGO
 Dormouse, LEROT
 Drum, TABOR
 Duck: Sea, EIDER
 Dynasty: Chinese, CHING, LIANG, SHANG
 Earthquake, SEISM
 Eel, ELVER, MORAY
 Ermine: European, STOAT
 Ether: Crystalline, APIOL
 Fabric: Velvetlike, PANNE
 Fabulist, AESOP
 Family: Italian, CENCI
 Fiber: West Indian, SISAL
 Fig: Smyrna, ELEME, ELEM
 Figure: Of speech, TROPE
 Finch: European, SERIN
 Fish: American small, KILLY
 Flower: Garden, ASTER
 Friend (Spanish), AMIGO

- Fruit: Tropical, MANGO
 Fungus: Rye, ERGOT
 Furze, GORSE
 Gateway, TORÁN, TORII
 Gem, AGATE, BERYL, PEARL, TOPAZ
 Genus: Barnacles, LEPAS
 Bears, URSUS
 Birds (loons), GAVIA
 Birds (nuthatches), SITTA
 Cats, FELIS
 Dogs, CANIS
 Fishes (chiro), ELOPS
 Fishes (perch), PERCA
 Geese, ANSER
 Grasses, STIPA
 Grasses (incl. oats), AVENA
 Gulls, LARUS
 Hares, rabbits, LEPUS
 Hawks, BUTEO
 Herbs, old world, INULA
 Herbs, trailing or climbing, APIOS
 Herbs, tropical, TACCA, URENA
 Horses, EQUUS
 Insects (olive flies), DACUS
 Lice, plant, APHIS
 Lichens, USNEA
 Lizards, AGAMA
 Moles, TALPA
 Mollusks, OLIVA
 Monkeys, CEBUS
 Palms, ARECA
 Pigeons, GOURA
 Plants (amaryllis family), AGAVE
 Ruminants (goats), CAPRA
 Shrubs, Asiatic, SABIA
 Shrubs (heath), ERICA
 Shrubs (incl. raspberry), RUBUS
 Shrubs, tropical, IXORA, TREMA, URENA
 Ticks, ARGAS
 Trees (of elm family), TREMA, ULMUS
 Trees, tropical, IXORA, TREMA
 Goat: Bezoar, PASAN
 God: Assyrian, ASHIR, ASHUR, ASSUR
 Babylonian, DAGAN, SIRIS
 Gaelic, DAGDA
 Hindu, BHAGA, INDRA, SHIVA
 Japanese, EBISU
 Philistine, DAGON
 Phrygian, ATTIS
 Teutonic, AEGIR, GYMIR
 Welsh, DYLAN
 Goddess: Babylonian, ISTAR, NANAI
 Hindu, DURGA, GAURI, SHREE
 Group: Of six, HEXAD
 Grove: Sacred to Diana, NEMUS
 Growing out, ENATE
 Guitar: Hindu, SITAR
 Hartebeest, CAAMA
 Headdress: Jewish or Persian, TIARA
 Liturgical, MITER, MITRE
 Heath, ERICA
 Herb: Grasslike marsh, SEDGE
 Heron, EGRET
 Hog: Young, SHOAT, SHOTE
 Image, EIKON
 Indian: Cariban, ARARA
 Iroquoian, HURON
 Mexican, AZTEC, OPATA, OTOMI
 Muskhogan, CREEK
 Siouan, OSAGE, TETON
 Spanish American, ARARA, CARIB
 Inflorescence: Racemose, AMENT
 Insect: Immature, LARVA
 Intrigue, CABAL
 Iris: Yellow, SEDGE
 Juniper, GORSE
 Old Testament, RETEM
 Kidneys: Pertaining to, RENAL
 King: British legendary, LLUDD
 Kite: European, GLEDE
 Kobold, NISSE
 Land: Cultivated, ARADA
 Landholder (Scotch), LAIRD, THANE
 Language: Dravidian, TAMIL
 Lariat, LASSO, REATA
 Laughing, RIA NT
 Lawgiver: Athenian, DRACO, SOLON
 Leaf: Calyx, SEPAL
 Fern, FROND
 Lemur, LORIS
 Letter: English, AITCH
 Greek, ALPHA, DELTA, GAMMA, KAPPA, OMEGA, SIGMA, THETA
 Hebrew, ALEPH, CHETH, GIMEL, SADHE, ZAYIN
 Lichen, USNEA
 Lighthouse, PHARE
 Lizard: Old World, AGAMA
 Louse: Plant, APHID
 Macaw: Brazilian, ARARA
 Mahogany: Philippine, ALMON
 Mammal: Badgerlike, RATEL
 Civetlike, GENET
 Giraffelike, OKAPI
 Raccoonlike, COATI
 Man (French), HOMME
 Marble, AGATE
 Mark: Insertion, CARET
 Market place: Greek, AGORA
 Marsupial: Australian, KOALA
 Measure: Electric, FARAD, HENRY
 Energy, JOULE
 Metric, LITER, STERE
 Printing, AGATE
 Russian, VERST
 Mixture: Smelting, MATTE
 Mohicans: Last of, UNCAS
 Molding: Convex, OVOLO, TORUS
 Mole, TALPA
 Monkey: African, PATAS
 Capuchin, SAJOU
 Howling, ARABA
 Monkshood, ATEES
 Month: Jewish, NISAN, SIVAN, TEBET
 Museum (French), MUSEE
 Musketeer, ATHOS
 Native: Aleutian, ALEUT
 New Zealand, MAORI
 Neckpiece: Ecclesiastical, AMICE
 Nerve (comb. form), NEURO
 Nest: Eagle's or hawk's, AERIE
 Insect's, NIDUS
 Net: Fishing, SEINE
 Newsstand, KIOSK

- Nitrogen, AZOTE
 Noble: Mohammedan, AMEER
 Nodule: Stone, GEODE
 Nostrils, NARES
 Notched irregularly, EROSE
 Nymph: Mohammedan, HOURI
 Official: Roman, EDILE
 Oleoresin, ELEMI
 Opening: Mouthlike, STOMA
 Oration: Funeral, ELOGE
 Ostiole, STOMA
 Page: Left-hand, VERSO
 Right-hand, RECTO
 Palm, ARECA, BETEL
 Park: Colorado, ESTES
 Perfume, ATTAR
 Philosopher: Greek, PLATO
 Pillar: Stone, STELA, STELE
 Pinnacle: Glacial, SERAC
 Plain, LLANO
 Plant: Century, AGAVE
 Climbing, LIANA
 Dwarf, CUMIN
 East Asian perennial, RAMIE
 Medicinal, SENNA
 Mustard family, CRESS
 Plate: Communion, PATEN
 Poem: Lyric, EPODE
 Point: Lowest, NADIR
 Poplar, ABELE, ALAMO, ASPEN
 Porridge: Spanish American, ATOLE
 Post: Stair, NEWEL
 Priest: Mohammedan, IMAUM
 Protozoan, AMEBA
 Queen: (French), REINE
 Hindu, RANEE
 Rabbit, CONEY
 Rail, CRAKE
 Red (heraldry), GULES
 Religion: Moslem, ISLAM
 Resin, ELEMI
 Revoke (law), ADEEM
 Rich man, MIDAS, NABOB
 Ridge: Sandy, ESKAR, ESKER
 River: French, LOIRE, SEINE
 Rockfish: California, REINA
 Rootstock: Fragrant, ORRIS
 Ruff: Female, REEVE
 Sack: Pack, KYACK
 Salt: Ethereal, ESTER
 Saltpeter, NITER, NITRE
 Salutation: Eastern, SALAM
 Sandpiper: Old World, TEREK
 Scented, OLENT
 School: Fish, SHOAL
 French public, LYCEE
 Scriptures: Mohammedan, KORAN
 Seaweeds, ALGAE
 Seed: Aromatic, ANISE
 Seraglio, HAREM, SERAI
 Serf, HELOT
 Sheep: Wild, AUDAD
 Sheeplike, OVINE
 Shield, AEGIS
 Shoe: Wooden, SABOT
 Shoots: Pickled bamboo, ACHAR
 Shot: Billiard, CAROM, MASSE
 Shrine: Buddhist, STUPA
 Shrub: Burning bush, WAHOO
 Ornamental evergreen, TOYON
 Used in tanning, SUMAC
 Silk: Watered, MOIRE
 Sister (French), SOEUR
 (Latin), SOROR
 Six: Group of, HEXAD
 Skeleton: Marine, CORAL
 Slave, HELOT
 Snake, ABOMA, ADDER, COBRA, RACER
 Soldier: French, POILU
 Indian, SEPOY
 Sour, ACERB
 Spirit: Air, ARIEL
 Staff: Shepherd's, CROOK
 Starwort, ASTER
 Steel (German), STAHL
 Stockade: Russian, ETAPE
 Stop (nautical), AVAST
 Storehouse, ETAPE
 Subway: Parisian, METRO
 Tapestry, ARRAS
 Tea: Paraguayan, YERBA
 Temple: Hawaiian, HEIAU
 Terminal: Positive, ANODE
 Theater: Greek, ODEON, ODEUM
 Then (French), ALORS
 Thread: Surgical, SETON
 Thrush: Wilson's, VEERY
 Title: Hindu, BABOO
 Indian, RAJAH, SAHEB, SAHIB
 Mohammedan, EMEER, IMAUM
 Tree: Buddhist sacred, PIPAL
 East Indian cotton, SIMAL
 Hickory, PECAN
 Light-wooded, BALSAM
 Malayan, TERAP
 Mediterranean, CAROB
 Mexican, ABETO
 Mexican pine, OCOTE
 New Zealand, MAIRE
 Philippine, ALMON
 Rain, SAMAN
 South American, UMBRA
 Tamarack, LARCH
 Tamarisk salt, ATLEE
 West Indian, ACANA
 Trout, CHARR
 Troy, ILION, ILIUM
 Twin: Siamese, CHANG
 Vestment: Ecclesiastical, STOLE
 Violin: Famous, AMATI, STRAD
 Volcano: Mud, SALSE
 Wampum, PEAGE
 War cry: Greek, ALALA
 Wavy (heraldry), UNDEE
 Weight: Jewish, GERAH
 Wen, TALPA
 Wheat, SPELT
 Wheel: Persian water, NORIA
 Whitefish, CISCO
 Willow, OSIER
 Window: Bay, ORIEL
 Wine, MEDOC, RHINE, TINTA, TOKAY
 Winged, ALATE
 Woman (French), FEMME
 Year: Excess of solar over lunar, EFECT
 Zoroastrian, PARSI

Words of Six or More Letters

- Agave, MAGUEY
 Alkaloid: Crystalline, ESERIN, ESERINE
 Alligator, CAYMAN
 Amphibole, EDENITE, URALITE
 Ant: White, TERMITE
 Antelope: African, DIKDIK, DUIKER,
 GEMSBOK, IMPALA, KODOO
 European, CHAMOIS
 Indian, NILGAI, NILGAU, NILGHAI,
 NILGHAU
 Ape: Asian or East Indian, GIBBON
 Appendage: Leaf, STIPEL, STIPULE
 Armadillo, PELUDO, TATOUAY
 Arrowroot, ARARAO
 Ascetic: Jewish, ESSENE
 Ass: Asian wild, ONAGER
 Avatar: Of Vishnu, KRISHNA
 Babylonian, ELAMITE
 Badge: Shoulder, EPAULET
 Baldness, ALOPECIA
 Barracuda, SENNET
 Bark: Aromatic, SINTOC
 Bearlike, URSINE
 Beetle, ELATER
 Bible: Zoroastrian, AVESTA
 Bird: Sea, PETREL
 South American, SERIEMA
 Wading, AVOCET, AVOSET
 Bone: Leg, FIBULA
 Branched, RAMATE
 Brother (Latin), FRATER
 Bunting: European, ORTOLAN
 Call: Trumpet, SENNET
 Canoe: Eskimo, BAIDAR, OOMIAK
 Caravansary, IMARET
 Cat: Asian or African, CHEETAH
 Leopardlike, OCELOT
 Cenobite: Jewish, ESSENE
 Centerpiece: Table, EPERGNE
 Cetacean, DOLPHIN, PORPOISE
 Chariot, ESSEDA, ESSEDE
 Chief: Seminole, OSCEOLA
 Claim: Release as (law), REMISE
 Clock: Water, CLEPSYDRA
 Cloud, CUMULUS, NIMBUS
 Coach: French hackney, FIACRE
 Coin: Czech, KORUNA
 Ethiopian, TALARI
 Finnish, MARKKA
 German, THALER
 Greek, DRACHMA
 Haitian, GOURDE
 Honduran, LEMPIRA
 Hungarian, FORINT
 Indo-Chinese, PIASTER
 Netherlands, GUILDER
 Panamanian, BALBOA
 Paraguayan, GUARANI
 Portuguese, ESCUDO
 Russian, COPECK, KOPECK, ROUBLE
 Spanish, PESETA
 Venezuelan, BOLIVAR
 Communion: Last holy, VIATICUM
 Conceal (law), ELOIGN
 Confection, PRALINE
 Construction: Sentence, SYNTAX
 Convexity: Shaft of column, ENTASIS
 Court: Anglo-Saxon, GEMOTE
 Cow: Sea, DUGONG, MANATEE
 Cylindrical, TERETE
 Dagger, STILETTO
 Malay, CREESE, KREESE
 Date: Roman, CALENDIS, KALENDS
 Deer, CARIBOU, WAPITI
 Disease: Plant, ERINOSE
 Doorkeeper, OSTIARY
 Dragonflies: Order of, ODANATA
 Drink: Of gods, NECTAR
 Drum: TABOUR
 Moorish, ATABAL, ATTABAL
 Duck: Fish-eating, MERGANSER
 Sea, SCOTER
 Dynasty: Chinese, MANCHU
 Eel, CONGER
 Edit, REDACT
 Envelope: Flower, PERIANTH
 Eskimo, AMERIND
 Ether: Crystalline, APIOLE
 Excuse (law), ESSOIN
 Eyespots, OCELLI
 Fabric, ESTAMENE, ESTAMIN, ETAMINE
 Falcon: European, KESTREL
 Figure: Used as column, CARYATID,
 TELAMON
 Fine: For punishment, AMERCE
 Fish: Asian fresh-water, GOURAMI
 Pike-like, BARRACUDA
 Five: Group of, PENTAD
 Fly: African, TSETSE
 Foot: Metric, ANAPEST, IAMBUS
 Foxlike, VULPINE
 Frying pan, SPIDER
 Fur, KARAKUL
 Galley: Greek or Roman, BIREME,
 TRIEME
 Game: Card, ECARTE
 Garment: Greek, CHLAMYS
 Gateway, GOPURA, TORANA
 Genus: Birds (ravens, crows), CORVUS
 Eels, CONGER
 Fishes, ANABAS
 Foxes, VULPES
 Herbs, ANEMONE
 Insects, CICADA
 Lemurs, GALAGO
 Mints (incl. catnip), NEPETA
 Mollusks, ANOMIA, ASTARTE, TEREDO
 Mollusks (incl. oysters), OSTREA
 Monkeys (spider monkeys), ATELES
 Thrushes (incl. robins), TURDUS
 Trees (of elm family), CELTIS
 Trees (incl. dogwood), CORNUS
 Trees, tropical American, SAPOTA
 Wrens, NANNUS
 Gibbon, SIAMANG, WOUWOU
 Gland: Salivary, RACEMOSE
 Goat: Bezoar, PASANG
 Goatlike, CAPRINE
 God: Assyrian, ASHSHUR, ASSHUR
 Babylonian, BABBAR, MARDUK, MERO-
 DACH, NANNAR, NERGAL, SHAMASH
 Hindu, BRAHMA, KRISHNA, VISHNU
 Tahitian, TAAROA
 Goddess: Babylonian, ISHTAR

Hindu, CHANDI, HAIMAVATI,
LAKSHMI, PARVATI, SARASVATI,
SARASWATI
Government, POLITY
Governor: Persian, SATRAP
Grandson (Scotch), NEPOTE
Group: Of five, PENTAD
Of nine, ENNEAD
Of seven, HEPTAD
Hare: In first year, LEVERET
Harpsichord, SPINET
Herb: Alpine, EDELWEISS
Chinese, GINSENG
South African, FREESIA
Hermit, EREMIT
Hero: Legendary, PALADIN
Heron, BITTERN
Horselike, EQUINE
Hound: Short-legged, BEAGLE
House (French), MAISON
Idiot, CRETIN
Implement: Stone, NEOLITH
Incarnation: Hindu, AVATAR
Indian: Iroquoian, SENECA
Southwestern, APACHE
Inn: Turkish, IMARET
Insects: Order of, DIPTERA
Instrument: Japanese banjolike, SAMISEN
Musical, CLAVIER, SPINET
Interstice, AREOLA
Ironwood, COLIMA
Juniper: Old Testament, RAETAM
Kettledrum, ATABAL
King: Fairy, OBERON
Kneecap, PATELLA
Knife, MACHETE
Langur: Sumatran, SIMPAI
Legislature: Spanish, CORTES
Lemur: African, GALAGO
Madagascar, AYEAYE
Letter: Greek, EPSILON, LAMBDA, OMI-
CRON, UPSILON
Hebrew: DALETH, LAMEDH, SAMEKH
Lighthouse, PHAROS
Lizard, IGUANA
Llama, ALPACA
Lockjaw, TETANUS
Locust, CICADA, CICALA
Macaw: Brazilian, MARACAN
Maid: Of Astolat, ELAINE
Mammal: Madagascar, TENDRAC,
TENREC
Man (Spanish), HOMBRE
Marmoset: South American, TAMARIN
Marsupial, BANDICOOT, WOMBAT
Massacre, POGROM
Mayor: Spanish, ALCALDE
Measure: Electric, AMPERE, COULOMB,
KILOWATT
Medicine: Quack, NOSTRUM
Member: Religious order, CENOBITE
Molasses, TREACLE
Monkey: African, GRIVET, NISNAS
Asian, LANGUR
Philippine, MACHIN
South American, PINCHE, SAIMIRI,
SAIMIRI, SAPAJOU
Monster, CHIMERA, GORGON

(Comb. form), TERATO
Cretan, MINOTAUR
Month: Jewish, HESHVAN, KISLEV, SHE-
BAT, TAMMUZ, TISHRI, VEADAR
Mountain: Asia Minor, ARARAT
Mulct, AMERCE
Musketeer, ARAMIS, PORTHOS
Nearsighted, MYOPIA
Net, TRAMMEL
New York City, GOTHAM
Nine: Group of, ENNEAD
Nobleman: Spanish, GRANDEE
Official: Roman, AEDILE
Onyx: Mexican, TECALI
Order: Dragonflies, ODANATA
Insects, DIPTERA
Organ: Plant, PISTIL
Ornament: Shoulder, EPAULET
Overcoat: Military, CAPOTE
Ox: Wild, BANTENG
Oxidation: Bronze or copper, PATINA
Paralysis: Incomplete, PARESIS
Pear: Alligator, AVOCADO
Persimmon: Mexican, CHAPOTE
Pipe: Peace, CALUMET
Plaid (Scotch), TARTAN
Plain, PAMPAS, STEPPE, TUNDRA
Plant: Buttercup family, ANEMONE
Century, MAGUEY
On rocks, LICHEN
Plowing: Fit for, ARABLE
Poem: Heroic, EPOPEE
Six-lined, SESTET
Point: Highest, ZENITH
Potion: Love, PHILTRE, PHILTRE
Protozoan, AMOEBA
Punish, AMERCE
Purple (heraldry), PURPURE
Queen: Fairy, TITANIA
Race: Skiing, SLALOM
Rat: Indian or Ceylonese, BANDICOOT
Retort, RIPOST, RIPOSTE
Ring: Harness, TERRET
Little, ANNULET
Rodent: Jumping, JERBOA
Spanish American, AGOUTI, AGOUTY
Sailor: East Indian, LASCAR
Salmon: Young, GRILSE
Salutation: Eastern, SALAAM
Sandpiper, PLOVER
Sandy, ARENOSE
Sapodilla, SAPOTA, SAPOTE
Saw: Surgical, TREPAN
Seven: Group of, HEPTAD
Sexes: Common to both, EPICENE
Shawl: Mexican, SERAPE
Sheathing: Flower, SPATHE
Sheep: Wild, AOUDAD, ARGALI
Shipworm, TEREDO
Shoes: Mercury's winged, TALARIA
Shortening: Syllable, SYSTOLE
Shrub, SPIRAEA
Sickle-shaped, FALCATE
Silver (heraldry), ARGENT
Snake, ANACONDA
Speech: Loss of, APHASIA
Spiral, HELICAL
Staff: Bishop's, CROSIER, CROZIER

Stalk: Plant, PETIOLE
 State: Swiss, CANTON
 Studio, ATELIER
 Swan: Young, CYGNET
 Swimming, NATANT
 Sword-shaped, ENSATE
 Terminal: Negative, CATHODE
 Third (music), TIERCE
 Thrust: Fencing, RIPOST, RIPOSTE
 Tile: Pertaining to, TEGULAR
 Tomb: Empty, CENOTAPH
 Tooth (comb. form), ODONTO
 Tower: Mohammedan, MINARET
 Tree: African timber, BAOBAB
 Black gum, TUPELO
 East Indian, MARGOSA
 Locust, ACACIA
 Malayan, SINTOC
 Marmalade, SAPOTE
 Urn: Tea, SAMOVAR
 Vehicle, LANDAU, TROIKA

Verbose, PROLIX
 Viceroy: Egyptian, KHEDIVE
 Vulture: American, CONDOR
 Warehouse (French), ENTREPOT
 Whale: White, BELUGA
 Whirlpool, VORTEX
 Will: Addition to, CODICIL
 Having left, TESTATE
 Wind, CHINOOK, MONSOON, SIMOOM,
 SIMOON, SIROCCO
 Window: In roof, DORMER
 Wine, BARBERA, BURGUNDY, CABER-
 NET, CHABLIS, CHIANTI, CLARET,
 MUSCATEL, RIESLING, SAUTERNE,
 SHERRY, ZINFANDEL
 Wolfish, LUPINE
 Woman: Boisterous, TERMAGANT
 Woolly, LANATE
 Workshop, ATELIER
 Zoroastrian, PARSEE

Old-Testament Names

(We do not pretend that this list is all-inclusive. We include only these names which in our opinion one meets most often in crossword puzzles.)

AARON: First high priest of Jews; son of Amram; brother of Miriam and Moses; father of Abihu, Eleazer, Ithamar, and Nadab.

ABEL: Son of Adam; slain by Cain.

ABIGAIL: Wife of Nabal; later, wife of David.

ABIHU: Son of Aaron.

ABIMELECH: King of Gerar.

ABNER: Commander of army of Saul and Ishbosheth; slain by Joab.

ABRAHAM (or ABRAM): Patriarch; forefather of the Jews; son of Terah; husband of Sarah; father of Isaac and Ishmael.

ABSALOM: Son of David and Maacah; revolted against David; slain by Joab.

ACHISH: King of Gath; gave refuge to David.

ACHSA (or ACHSAH): Daughter of Caleb; wife of Othniel.

ADAH: Wife of Lamech.

ADAM: First man; husband of Eve; father of Cain, Abel, and Seth.

ADONIJAH: Son of David and Haggith.

AGAG: King of Amalek; spared by Saul; slain by Samuel.

AHASUERUS: King of Persia; husband of Vashti and, later, Esther; sometimes identified with Xerxes the Great.

AHIJAH: Prophet; foretold accession of Jeroboam.

AHINOAM: Wife of David.

AMASA: Commander of army of David; slain by Joab.

AMNON: Son of David and Ahinoam; ravished Tamar; slain by Absalom.

AMRAM: Husband of Jochebed; father of Aaron, Miriam and Moses.

ASENATH: Wife of Joseph.

ASHER: Son of Jacob and Zilpah.

BALAAM: Prophet; rebuked by his donkey for cursing God.

BARAK: Jewish captain; associated with Deborah.

BARUCH: Secretary to Jeremiah.

BATHSHEBA: Wife of Uriah; later, wife of David.

BELSHAZZAR: Crown prince of Babylon.

BENAIAH: Warrior of David; proclaimed Solomon King.

BEN-HADAD: Name of several kings of Damascus.

BENJAMIN: Son of Jacob and Rachel.

BEZAALEL: Chief architect of tabernacle.

BILDAD: Comforter of Job.

BILBAH: Servant of Rachel; mistress of Jacob.

BOAZ: Husband of Ruth; father of Obed.

CAIN: Son of Adam and Eve; slayer of Abel; father of Enoch.

CAINAN: Son of Enos.

CALEB: Spy sent out by Moses to visit Canaan; father of Achsa.

CANAAN: Son of Ham.

CHILION: Son of Elimelech; husband of Orpah.

CUSH: Son of Ham; father of Nimrod.

DAN: Son of Jacob and Bilhah.

DANIEL: Prophet; saved from lions by God.

DEBORAH: Hebrew prophetess; helped Israelites conquer Canaanites.

DELILAH: Mistress and betrayer of Samson.

ELAM: Son of Shem.

ELEAZAR: Son of Aaron; succeeded him as high priest.

ELI: High priest and judge; teacher of Samuel; father of Hophni and Phinehas.

ELIAKIM: Chief minister of Hezekiah.

ELIEZER: Servant of Abraham.

ELIHU: Comforter of Job.

ELIJAH (or **ELIAS**): Prophet; went to heaven in chariot of fire.

ELIMELECH: Husband of Naomi; father of Chilion and Mahlon.

ELIPHAZ: Comforter of Job.

ELISHA (or **ELISEUS**): Prophet; successor of Elijah.

ELKANAH: Husband of Hannah; father of Samuel.

ENOCH: Son of Cain.

ENOCH: Father of Methuselah.

ENOS: Son of Seth; father of Cainan.

EPHRAIM: Son of Joseph.

ESAU: Son of Isaac and Rebecca; sold his birthright to his brother Jacob.

ESTHER: Jewish wife of Ahasuerus; saved Jews from Haman's plotting.

EVE: First woman; created from rib of Adam.

EZRA (or **ESDRAS**): Hebrew scribe and priest.

GAD: Son of Jacob and Zilpah.

GEHAZI: Servant of Elisha.

GIDEON: Israelite hero; defeated Midianites.

GOLIATH: Philistine giant; slain by David.

HAGAR: Handmaid of Sarah; concubine of Abraham; mother of Ishmael.

HAGGITH: Mother of Adonijah.

HAM: Son of Noah; father of Cush, Mizraim, Phut, and Canaan.

HAMAN: Chief minister of Ahasuerus; hanged on gallows prepared for Mordecai.

HANNAH: Wife of Elkanah; mother of Samuel.

HANUN: King of Ammonites.

HARAN: Brother of Abraham; father of Lot.

HAZAEI: King of Damascus.

HEPHZIBAH: Wife of Hezekiah; mother of Manasseh.

HIRAM: King of Tyre.

HOLOFERNES: General of Nebuchadnezzar; slain by Judith.

HOPHNI: Son of Eli.

ISAAC: Hebrew patriarch; son of Abraham and Sarah; half brother of Ishmael; husband of Rebecca; father of Esau and Jacob.

ISHMAEL: Son of Abraham and Hagar; half brother of Isaac.

ISSACHAR: Son of Jacob and Leah.

ITHAMAR: Son of Aaron.

JABAL: Son of Lamech and Adah.

JABIN: King of Hazor.

JACOB: Hebrew patriarch, founder of Israel; son of Isaac and Rebecca; husband of Leah and Rachel; father of Asher, Benjamin, Dan, Gad, Issachar, Joseph, Judah, Levi, Naphtali, Reuben, Simeon, and Zebulun.

JAEL: Slayer of Sisera.

JAPHETH: Son of Noah.

JEHOIADA: High priest; husband of Jehoshabeath; revolted against Athaliah and made Joash King of Judah.

JEHOSHABEATH (or **JEHOSHEBA**): Daughter of Jehoram of Judah; wife of Jehoiada.

JEPHTHAH: Judge in Israel; sacrificed his only daughter because of vow.

JESSE: Son of Obed; father of David.

JETHRO: Midianite priest; father of Zipporah.

JEZEBEL: Phoenician princess; wife of Ahab; mother of Ahaziah, Athaliah, and Jehoram.

JOAB: Commander in chief under David; slayer of Abner, Absalom, and Amasa.

JOB: Patriarch; underwent many afflictions; comforted by Bildad, Eliphaz, and Zophar.

JOCHEBED: Wife of Amram.

JONAH: Prophet; cast into sea and swallowed by great fish.

JONATHAN: Son of Saul; friend of David.

JOSEPH: Son of Jacob and Rachel; sold into slavery by his brothers; husband of Asenath; father of Ephraim and Manasseh.

JOSHUA: Successor of Moses; son of Nun.

JUBAL: Son of Lamech and Adah.

JUDAH: Son of Jacob and Leah.

JUDITH: Slayer of Holofernes.

KISH: Father of Saul.

LABAN: Father of Leah and Rachel.

LAMECH: Son of Methuselah; father of Noah.

LAMECH: Husband of Adah and Zillah; father of Jabal, Jubal, and Tubal-Cain.

LEAH: Daughter of Laban; wife of Jacob.

LEVI: Son of Jacob and Leah.

LOT: Son of Haran; escaped destruction of Sodom.

MAACAH: Mother of Absalom and Tamar.

MAHLON: Son of Elimelech; first husband of Ruth.

MANASSEH: Son of Joseph.

MELCHIZEDEK: King of Salem.

METHUSELAH: Patriarch; son of Enoch; father of Lamech.

MICHAL: Daughter of Saul; wife of David.

MIRIAM: Prophetess; daughter of Amram; sister of Aaron and Moses.

MIZRAIM: Son of Ham.

MORDECAI: Uncle of Esther; with her aid, saved Jews from Haman's plotting.

MOSES: Prophet and lawgiver; son of Amram; brother of Aaron and Miriam; husband of Zipporah.

NAAMAN: Syrian captain; cured of leprosy by Elisha.

NABAL: Husband of Abigail.

NABOTH: Owner of vineyard; stoned to death because he would not sell it to Ahab.

NADAB: Son of Aaron.

NAHOR: Father of Terah.

NAOMI: Wife of Elimelech; mother-in-law of Ruth.

NAPHTALI: Son of Jacob and Bilhah.

NATHAN: Prophet; reproved David for causing Uriah's death.

NEBUCHADNEZZAR (or **NEBUCHAD-REZZAR**): King of Babylon; destroyer of Jerusalem.

NEHEMIAH: Jewish leader; empowered by Artaxerxes to rebuild Jerusalem.

NIMROD: Mighty hunter; son of Cush.

NOAH: Patriarch; Son of Lamech; escaped Deluge by building Ark; father of Ham, Japheth and Shem.

NUN (or **NON**): Father of Joshua.

OBEED: Son of Boaz; father of Jesse.

OG: King of Bashan.

ORPAH: Wife of Chilion.

OTHNIEL: Kenezite; judge of Israel; husband of Achsa.

PHINEHAS: Son of Eleazer.

PHINEHAS: Son of Eli.

PHUT (or **PUT**): Son of Ham.

POTIPHAR: Egyptian official; bought Joseph.

RACHEL: Wife of Jacob.

REBECCA (or **REBEKAH**): Wife of Isaac.

REUBEN: Son of Jacob and Leah.

RUTH: Wife of Mahlon, later of Boaz; daughter-in-law of Naomi.

SAMSON: Judge of Israel; famed for strength; betrayed by Delilah.

SAMUEL: Hebrew judge and prophet; son of Elkanah.

SARAH (or **SARA**, **SARAI**): Wife of Abraham.

SENNACHERIB: King of Assyria.

SETH: Son of Adam; father of Enos.

SHEM: Son of Noah; father of Elam.

SIMEON: Son of Jacob and Leah.

SISERA: Canaanite captain; slain by Jael.

TAMAR: Daughter of David and Maachah; ravished by Amnon.

TERAH: Son of Nahor; father of Abraham.

TUBAL-CAIN: Son of Lamech and Zillah.

URIAH: Husband of Bathsheba; sent to death in battle by David.

VASHTI: Wife of Ahasuerus; set aside by him.

ZADOK: High priest during David's reign.

ZEBULUN (or **ZABULON**): Son of Jacob and Leah.

ZILLAH: Wife of Lamech.

ZILPAH: Servant of Leah; mistress of Jacob.

ZIPPORAH: Daughter of Jethro; wife of Moses.

ZOPHAR: Comforter of Job.

Kings of Judah and Israel

Kings Before Division of Kingdom

SAUL: First King of Israel; son of Kish; father of Ish-Bosheth, Jonathan and Michal.

ISH-BOSHETH (or **ESHBAAL**): King of Israel; son of Saul.

DAVID: King of Judah; later of Israel; son of Jesse; husband of Abigail, Ahinoam, Bathsheba, Michal, etc.; father of Absalom, Adonijah, Amnon, Solomon, Tamar, etc.

SOLOMON: King of Israel and Judah; son of David; father of Rehoboam.

REHOBOAM: Son of Solomon; during his reign the kingdom was divided into Judah and Israel.

Kings of Judah (Southern Kingdom)

REHOBOAM: First King.

ABIJAH (or **ABIJAM** or **ABIA**): Son of Rehoboam.

ASA: Probably son of Abijah.

JEHOSHAPHAT: Son of Asa.

JEHORAM (or **JORAM**): Son of Jehoshaphat; husband of Athaliah.

AHAZIAH: Son of Jehoram and Athaliah.

ATHALIAH: Daughter of King Ahab of Israel and Jezebel; wife of Jehoram.

JOASH (or **JEHOASH**): Son of Ahaziah.

AMAZIAH: Son of Joash.

UZZIAH (or **AZARIAH**): Son of Amaziah.

JOTHAM: Regent, later King; son of Uzziah.

AHAZ: Son of Jotham.

HEZEKIAH: Son of Ahaz; husband of Hephtzi-Bah.

MANASSEH: Son of Hezekiah and Hephtzi-Bah.

AMON: Son of Manasseh.

JOSIAH (or **JOSIAS**): Son of Amon.

JEHOAHAZ (or **JOAHAZ**): Son of Josiah.

JEHOIAKIM: Son of Josiah.

JEHOIACHIN: Son of Jehoiakim.

ZEDEKIAH: Son of Josiah; kingdom overthrown by Babylonians under Nebuchadnezzar.

Kings of Israel (Northern Kingdom)

JEROBOAM I: Led secession of Israel.

NADAB: Son of Jeroboam I.

BAASHA: Overthrew Nadab.

ELAH: Son of Baasha.

ZIMRI: Overthrew Elah.

OMRI: Overthrew Zimri.

AHAB: Son of Omri; husband of Jezebel.

AHAZIAH: Son of Ahab.

JEHORAM (or **JORAM**): Son of Ahab.

JEHU: Overthrew Jehoram.

JEHOAHAZ (or **JOAHAZ**): Son of Jehu.

JEHOASH (or **JOASH**): Son of Jehoahaz.

JEROBOAM II: Son of Jehoash.
 ZECHARIAH: Son of Jeroboam II.
 SHALLUM: Overthrew Zechariah.
 MENAHEM: Overthrew Shallum.

PEKAHIAH: Son of Menahem.
 PEKAH: Overthrew Pekahiah.
 HOSHEA: Overthrew Pekah; kingdom
 overthrown by Assyrians under Sargon II.

Prophets

Major

ISAIAH	JEREMIAH	EZEKIEL	DANIEL
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Minor

HOSEA	OBADIAH	NAHUM	HAGGAI
JOEL	JONAH	HABAKKUK	ZECHARIAH
AMOS	MICAH	ZEPHANIAH	MALACHI

Foreign Phrases

(NOTE: The English meanings given are not necessarily literal translations.)

AB OVO: From the beginning.
 ABSIT OMEN: Hope this is no bad luck.
 AEQUO ANIMO: Undisturbed in mind.
 AD VALOREM: According to its value.
 ALEA JACTA EST: The die is cast.
 ALMA MATER: One's college or school.
 ALTER EGO: Other self.
 AMICUS CURIAE: Friend of the court.
 ANNO DOMINI: Year of our Lord.
 BEL CANTO: A style of singing marked
 by virtuosity and beauty.
 BETE NOIRE: Particular nemesis.
 BONA FIDE: In good faith; genuine.
 CARPE DIEM: Enjoy today.
 CASUS BELLI: Cause of war.
 CAVEAT EMPTOR: Buy at your own
 risk.

CORPUS DELICTI: Fundamental fact or
 facts necessary to commission of a crime.
 CUI BONO: To whose advantage?
 CUM GRANO SALIS: With a grain of
 salt.

DE FACTO: As a matter of fact; because
 of this fact.

DEO GRATIAS: Thanks be to God.
 DEUS EX MACHINA: Artificially pro-
 duced to bring a solution of some extreme
 difficulty.

ECCE HOMO: This is the man.
 ERRARE HUMANUM (EST): To err is
 human.

FIAT LUX: Let there be light.
 FIDUS ACHATES: Faithful friend.

FLAGRANTE DELICTO: Caught in the
 act.

HABEAS CORPUS: Common-law writ to
 bring a person before a court or judge.

HIC JACET: Here lies. . . .
 HOI POLLOI: The common people.
 HONORIS CAUSA: For the sake of
 honor.

HORS D'OEUVRES: Side dishes.
 IN VINO VERITAS: In wine there is
 truth.

IPSE DIXIT: An assertion made but not
 proved.

IPSO FACTO: By the very fact.
 JE-NESSE DOREE: Gilded youth.
 LABOR OMNIA VINCIT: Work over-
 comes all things.

LAISSEZ FAIRE: Noninterference.
 MIRABILE DICTU: Wonderful to relate.
 MULTUM IN PARVO: Much in little.
 NIL ADMIRARI: To be astonished at
 nothing.

NOLENS, VOLENS: Willy-nilly.
 O TEMPORA! O MORES!: What sad
 times and customs!

PERSONA GRATA: A favored person.
 POST MORTEM: After death.
 PRO BONO PUBLICO: For the public
 welfare.

PRO TEMPORE: For the time being.
 RARA AVIS: Extraordinary person or
 thing.

REQUIESCAT IN PACE: Rest in peace.
 SAVOIR FAIRE: Know-how; manners
 for all occasions.

SINE DIE: With no day set for the next
 meeting.

SINE QUA NON: Indispensable.
 SPIRITUS FRUMENTI: Alcohol.
 STATUS (IN) QUO: State in which any-
 thing is.

SUI GENERIS: In a class by itself.
 SURSUM CORDA: Lift up your hearts.
 TEMPUS FUGIT: Time flies.
 ULTIMA THULE: The limit in an ideal
 way.

VAE VICTIS: Woe to the conquered.
 VENI, VIDI, VICI: I came, I saw, I
 conquered.

Greek and Roman Mythology

(Most of the Greek deities were adopted by the Romans, although in many cases there was a change of name. In the list below, information is given under the Greek name; the name in parentheses is the Latin equivalent. However, all Latin names are listed with cross references to the Greek ones. In addition, there are several deities which were exclusively Roman.)

ACHERON: *See* Rivers.

ACHILLES: Greek warrior; slew Hector at Troy; slain by Paris, who wounded him in his vulnerable heel.

ACTAEON: Hunter; surprised Artemis bathing; changed by her to stag and killed by his dogs.

ADMETUS: King of Thessaly; his wife, Alcestis, offered to die in his place.

ADONIS: Beautiful youth loved by Aphrodite.

AEACUS: One of three judges of dead in Hades; son of Zeus.

AETES: King of Colchis; father of Medea; keeper of Golden Fleece.

AEGEUS: Father of Theseus; believing Theseus killed in Crete, he drowned himself, Aegean Sea named for him.

AEGISTHUS: Son of Thyestes; slew Atreus; with Clytemnestra, his paramour, slew Agamemnon; slain by Orestes.

AEGYPTUS: Brother of Danaüs; his sons, except Lynceus, slain by Danaides.

AENEAS: Trojan; son of Anchises and Aphrodite; after fall of Troy, led his followers eventually to Italy; loved and deserted Dido.

AEOLUS: *See* Winds.

AESCUAPIUS: *See* Asclepius.

AESON: King of Iolus; father of Jason; overthrown by his brother Pelias; restored to youth by Medea.

AETHER: Personification of sky.

AETHRA: Mother of Theseus.

AGAMEMNON: King of Mycenae; son of Atreus; brother of Menelaus; leader of Greeks against Troy; slain on his return home by Clytemnestra and Aegisthus.

AGLAIA: *See* Graces.

AJAX: Greek warrior; killed himself at Troy because Achilles' armor was awarded to Odysseus.

ALCESTIS: Wife of Admetus; offered to die in his place but saved from death by Hercules.

ALCMENE: Wife of Amphitryon; mother by Zeus of Hercules.

ALCYONE: *See* Pleiades.

ALECTO: *See* Furies.

ALECTRYON: Youth changed by Ares into cock.

ALTHAEA: Wife of Oeneus; mother of Meleager.

AMAZONS: Female warriors in Asia Minor; supported Troy against Greeks.

AMOR: *See* Eros.

AMPHION: Musician; husband of Niobe; charmed stones to build fortifications for Thebes.

AMPHITRITE: Sea goddess; wife of Poseidon.

AMPHITRYON: Husband of Alcmene.

ANCHISES: Father of Aeneas.

ANCILE: Sacred shield that fell from heavens; palladium of Rome.

ANDRAEMON: Husband of Dryope.

ANDROMACHE: Wife of Hector.

ANDROMEDA: Daughter of Cepheus; chained to cliff for monster to devour; rescued by Perseus.

ANTEIA: Wife of Proetus; tried to induce Bellerophon to elope with her.

ANTEROS: God who avenged unrequited love.

ANTIGONE: Daughter of Oedipus; accompanied him to Colonus; performed burial rite for Polynices and was buried alive.

ANTINOÜS: Leader of suitors of Penelope; slain by Odysseus.

APHRODITE (VENUS): Goddess of love and beauty; daughter of Zeus; mother of Eros.

APOLLO: God of beauty, poetry, music; later identified with Helios as Phoebus Apollo; son of Zeus and Leto.

AQUILUS: *See* Winds.

ARACHNE: Maiden who challenged Athena to weaving contest; changed to spider.

ARES (MARS): God of war; son of Zeus and Hera.

ARGO: Ship in which Jason and followers sailed to Colchis for Golden Fleece.

ARGUS: Monster with hundred eyes; slain by Hermes; his eyes placed by Hera into peacock's tail.

ARIADNE: Daughter of Minos; aided Theseus in slaying Minotaur; deserted by him on island of Naxos and married to Dionysus.

ARION: Musician; thrown overboard by pirates but saved by dolphin.

ARTEMIS (DIANA): Goddess of moon; huntress; twin sister of Apollo.

ASCLEPIUS (AESCUAPIUS): Mortal son of Apollo; slain by Zeus for raising dead; later deified as god of medicine. Also known as Asklepios.

ASTARTE: Phoenician goddess of love; variously identified with Aphrodite, Selene, and Artemis.

ASTRAEA: Goddess of Justice; daughter of Zeus and Themis.

ATALANTA: Princess who challenged her suitors to a foot race; Hippomenes won race and married her.

ATHENA (MINERVA): Goddess of wisdom; known poetically as Pallas Athene; sprang fully armed from head of Zeus.

ATLAS: Titan; held world on his shoulders as punishment for warring against Zeus; son of Iapetus.

ATREUS: King of Mycenae; father of Menelaus and Agamemnon; brother of Thyestes, three of whose sons he slew and served to him at banquet; slain by Aegisthus.

ATROPOS: *See* Fates.

AURORA: *See* Eos.

AUSTER: *See* Winds.

AVERNUS: Infernal regions; name derived from small vaporous lake near Vesuvius which was fabled to kill birds and vegetation.

BACCHUS: *See* Dionysus.

BELLEROPHON: Corinthian hero; killed Chimera with aid of Pegasus; tried to reach Olympus on Pegasus and was thrown to his death.

BELLONA: Roman goddess of war.

BOREAS: *See* Winds.

BRIAREUS: Monster of hundred hands; son of Uranus and Gaea.

BRISEIS: Captive maiden given to Achilles; taken by Agamemnon in exchange for loss of Chryseis, which caused Achilles to cease fighting, until death of Patroclus.

CADMUS: Brother of Europa; planter of dragon seeds from which first Thebans sprang.

CALLIOPE: *See* Muses.

CALYPSO: Sea nymph; kept Odysseus on her island Ogygia for seven years.

CASSANDRA: Daughter of Priam; prophetess who was never believed; slain with Agamemnon.

CASTOR: *See* Dioscuri.

CELAENO: *See* Pleiades.

CENTAURS: Beings half man and half horse; lived in mountains of Thessaly.

CEPHALUS: Hunter; accidentally killed his wife Procris with his spear.

CEPHEUS: King of Ethiopia; father of Andromeda.

CERBERUS: Three-headed dog guarding entrance to Hades.

CERES: *See* Demeter.

CHAOS: Formless void; personified as first of gods.

CHARON: Boatman on Styx who carried souls of dead to Hades; son of Erebus.

CHARYBDIS: Female monster; personification of whirlpool.

CHIMERA: Female monster with head of lion, body of goat, tail of serpent; killed by Bellerophon.

CHIRON: Most famous of centaurs.

CHRONOS: Personification of time.

CHRYSEIS: Captive maiden given to Agamemnon; his refusal to accept ransom from her father Chryses caused Apollo to send plague on Greeks besieging Troy.

CIRCE: Sorceress; daughter of Helios; changed Odysseus' men into swine.

CLIO: *See* Muses.

CLOTHO: *See* Fates.

CLYTEMNESTRA: Wife of Agamemnon, whom she slew with aid of her paramour, Aegisthus; slain by her son Orestes.

COCYTUS: *See* Rivers.

CREON: Father of Jocasta; forbade burial of Polynices; ordered burial alive of Antigone.

CREÜSA: Princess of Corinth, for whom Jason deserted Medea; slain by Medea, who sent her poisoned robe; also known as Glauke.

CREÜSA: Wife of Aeneas; died fleeing Troy.

CRONUS (SATURN): Titan; god of harvests; son of Uranus and Gaea; dethroned by his son Zeus.

CUPID: *See* Eros.

CYBELE: Anatolian nature goddess; adopted by Greeks and identified with Rhea.

CYCLOPES: Race of one-eyed giants (singular: Cyclops).

DAEDALUS: Athenian artificer; father of Icarus; builder of Labyrinth in Crete; devised wings attached with wax for him and Icarus to escape Crete.

DANAË: Princess of Argos; mother of Perseus by Zeus, who appeared to her in form of golden shower.

DANAÏDES: Daughters of Danaüs; at his command, all except Hypermnestra slew their husbands, the sons of Aegyptus.

DANAÜS: Brother of Aegyptus; father of Danaïdes; slain by Lynceus.

DAPHNE: Nymph; pursued by Apollo; changed to laurel tree.

DECUMA: *See* Fates.

DEINO: *See* Graeae.

DEMETER (CERES): Goddess of agriculture; mother of Persephone.

DIANA: *See* Artemis.

DIDO: Founder and queen of Carthage; stabbed herself when deserted by Aeneas.

DIOMEDES: Greek hero; with Odysseus, entered Troy and carried off Palladium, sacred statue of Athena.

DIOMEDES: Owner of man-eating horses, which Hercules, as ninth labor, carried off.

DIONE: Titan goddess; mother by Zeus of Aphrodite.

DIONYSUS (BACCHUS): God of wine; son of Zeus and Semele.

DIOSCURI: Twins Castor and Pollux; sons of Leda by Zeus.

DIS: See Hades.

DRYADS: Wood nymphs.

DRYOPÉ: Maiden changed to Hamadryad.

ECHO: Nymph who fell hopelessly in love with Narcissus; faded away except for her voice.

ELECTRA: Daughter of Agamemnon and Clytemnestra; sister of Orestes; urged Orestes to slay Clytemnestra and Aegisthus.

ELECTRA: See Pleiades.

ELYSIUM: Abode of blessed dead.

ENDYMION: Mortal loved by Selene.

ENYO: See Graeeae.

EOS (AURORA): Goddess of dawn.

EPIMETHEUS: Brother of Prometheus; husband of Pandora.

ERATO: See Muses.

EREBUS: Spirit of darkness; son of Chaos.

ERINYES: See Furies.

ERIS: Goddess of discord.

EROS (AMOR or CUPID): God of love; son of Aphrodite.

ETEOCLES: Son of Oedipus, whom he succeeded to rule alternately with Polyneices; refused to give up throne at end of year; he and Polyneices slew each other.

EUMENIDES: See Furies.

EUPHROSYNE: See Graces.

EUROPA: Mortal loved by Zeus, who, in form of white bull, carried her off to Crete.

EURUS: See Winds.

EURYALE: See Gorgons.

EURYDICE: Nymph; wife of Orpheus.

EURYSTHEUS: King of Argos; imposed twelve labors on Hercules.

EUTERPE: See Muses.

FATES: Goddesses of destiny: Clotho (Spinner of thread of life), Lachesis (Determiner of length), and Atropos (Cutter of thread); also called Moirae. Identified by Romans with their goddesses of fate; Nona, Decuma, and Morta; called Parcae.

FAUNS: Roman deities of woods and groves.

FAUNUS: See Pan.

FAVONIUS: See Winds.

FLORA: Roman goddess of flowers.

FORTUNA: Roman goddess of fortune.

FURIES: Avenging spirits: Alecto, Megaera, and Tisiphone; known also as Erinyes or Eumenides.

GAEA: Goddess of earth; daughter of Chaos; mother of Titans; known also as Ge, Gaia, etc.

GALATEA: Statue of maiden carved from ivory by Pygmalion; given life by Aphrodite.

GALATEA: Sea nymph; loved by Polyphemus.

GANYMEDE: Beautiful boy; successor to Hebe as cupbearer of gods.

GLAUCUS: Mortal who became sea divinity by eating magic grass.

GLAUKE: See Creusa.

GOLDEN FLEECE: Fleece from ram that flew Phrixos to Colchis; Aëtes placed it under guard of dragon; carried off by Jason.

GORGONS: Female monsters: Euryale, Medusa, and Stheno; had snakes for hair; their glances turned mortals to stone. See Medusa.

GRACES: Beautiful goddesses: Aglaia (Brilliance), Euphrosyne (Joy), and Thalia (Bloom); daughters of Zeus.

GRAEAE: Sentinels for Gorgons: Deino, Enyo, and Pephredo; had one eye among them, which passed from one to another.

HADES (DIS): Name sometimes given Pluto; also, abode of dead, ruled by Pluto.

HAEMON: Son of Creon; promised husband of Antigone; killed himself in her tomb.

HAMADRYADS: Tree nymphs; lived and died with trees they inhabited.

HARPIES: Monsters with heads of women and bodies of birds.

HEBE (JUVENTAS): Goddess of youth; cupbearer of gods before Ganymede; daughter of Zeus and Hera.

HECATE: Goddess of sorcery and witchcraft.

HECTOR: Son of Priam; slayer of Patroclus; slain by Achilles.

HECUBA: Wife of Priam.

HELEN: Fairest woman in world; daughter of Zeus and Leda; wife of Menelaus; carried to Troy by Paris, causing Trojan War.

HELLIADES: Daughters of Helios; mourned for Phaëthon and were changed to poplar trees.

HELIOS (SOL): God of sun; later identified with Phoebus Apollo.

HELLE: Sister of Phrixos; fell from ram of Golden Fleece; water where she fell named Hellespont.

HEPHAESTUS (VULCAN): God of fire; celestial blacksmith; son of Zeus and Hera; husband of Aphrodite.

HERA (JUNO): Queen of heaven; wife of Zeus.

HERCULES: Hero and strong man; son of Zeus and Alcmena; performed twelve

labors or deeds to be free from bondage under Eurystheus; after death, his mortal share was destroyed, and he became immortal. Also known as Herakles or Heracles. Labors: (1) killing Nemean lion; (2) killing Lernaean Hydra; (3) capturing Erymanthian boar; (4) capturing Cerynean hind; (5) killing man-eating Stymphalian birds; (6) procuring girdle of Hippolyte; (7) cleaning Augean stables; (8) capturing Cretan bull; (9) capturing man-eating horses of Diomedes; (10) capturing cattle of Geryon; (11) procuring golden apples of Hesperides; (12) bringing Cerberus up from Hades.

HERMES (MERCURY): God of physicians and thieves; messenger of gods; son of Zeus and Maia.

HERO: Priestess of Aphrodite; Leander swam Hellespont nightly to see her; drowned herself at his death.

HESPERUS: Evening star.

HESTIA (VESTA): Goddess of hearth; sister of Zeus.

HIPPOLYTE: Queen of Amazons; wife of Theseus.

HIPPOLYTUS: Son of Theseus and Hippolyte; falsely accused by Phaedra of trying to kidnap her; slain by Poseidon at request of Theseus.

HIPPOMENES: Husband of Atalanta, whom he beat in foot race by dropping golden apples, which she stopped to pick up.

HYACINTHUS: Beautiful youth accidentally killed by Apollo, who caused flower to spring up from his blood.

HYDRA: Nine-headed monster in marsh of Lerna; slain by Hercules.

HYGEIA: Personification of health.

HYMEN: God of marriage.

HYPERION: Titan; early sun god; father of Helios.

HYPERMNESTRA: Daughter of Danaüs; refused to kill her husband Lynceus.

HYPNOS (SOMNUS): God of sleep.

IAPETUS: Titan; father of Atlas, Epimetheus, and Prometheus.

ICARUS: Son of Daedalus; flew too near sun with wax-attached wings and fell into sea and was drowned.

IO: Mortal maiden loved by Zeus; changed by Hera into heifer.

IOBATES: King of Lycia; sent Bellerophon to slay Chimera.

IPHIGENIA: Daughter of Agamemnon; offered as sacrifice to Artemis at Aulis; carried by Artemis to Tauris where she became priestess; escaped from there with Orestes.

IRIS: Goddess of rainbow; messenger of Zeus and Hera.

ISMENE: Daughter of Oedipus; sister of Antigone.

IULUS: Son of Aeneas.

IXION: King of Lapithae; for making love to Hera he was bound to endlessly revolving wheel in Tartarus.

JANUS: Roman god of gates and doors; represented with two opposite faces.

JASON: Son of Aeson; to gain throne of Iolus from Pellas, went to Colchis and brought back Golden Fleece; married Medea; deserted her for Creusa.

JOCASTA: Wife of Laius; mother of Oedipus; unwittingly became wife of Oedipus; hanged herself when relationship was discovered.

JUNO: See Hera.

JUPITER: See Zeus.

JUVENTAS: See Hebe.

LACHESIS: See Fates.

LAIUS: Father of Oedipus, by whom he was slain.

LAOCOON: Priest of Apollo at Troy; warned against bringing wooden horse into Troy; destroyed with his two sons by serpents sent by Athena.

LARES: Roman ancestral spirits protecting descendants and homes.

LAVINIA: wife of Aeneas after defeat of Turnus.

LEANDER: Swam Hellespont nightly to see Hero; drowned in storm.

LEDA: Mortal loved by Zeus in form of Swan; mother of Helen, Clytemnestra, Dioscuri.

LETHE: See Rivers.

LETO (LATONA): Mother by Zeus of Artemis and Apollo.

LUCINA: Roman goddess of childbirth; identified with Juno.

LYNCEUS: Son of Aegyptus; husband of Hypermnestra; slew Danaüs.

MAIA: Daughter of Atlas; mother of Hermes.

MAIA: See Pleiades.

MANES: Souls of dead Romans, particularly of ancestors.

MARS: See Ares.

MARSYAS: Shepherd; challenged Apollo to music contest and lost; flayed alive by Apollo.

MEDEA: Sorceress; daughter of Aëtes; helped Jason obtain Golden Fleece; when deserted by him for Creusa, killed her children and Creusa.

MEDUSA: Gorgon; slain by Perseus, who cut off her head.

MEGAERA: See Furies.

MELEAGER: Son of Althaea; his life would last as long as brand burning at his birth; Althaea quenched and saved it but destroyed it when Meleager slew his uncles.

MELPOMENE: See Muses.

MEMNON: Ethiopian king; made immortal by Zeus; son of Tithonus and Eos.

MENELAUS: King of Sparta; son of Atreus; brother of Menelaus; husband of Helen.

MERCURY: *See* Hermes.

MEROPE: *See* Pleiades.

MEZENTIUS: Cruel Etruscan king; ally of Turnus against Aeneas; slain by Aeneas.

MIDAS: King of Phrygia; given gift of turning to gold all he touched.

MINERVA: *See* Athena.

MINOS: King of Crete; after death, one of three judges of dead in Hades; son of Zeus and Europa.

MINOTAUR: Monster, half man and half beast, kept in Labyrinth in Crete; slain by Theseus.

MNEMOSYNE: Goddess of memory; mother by Zeus of Muses.

MOIRAE: *See* Fates.

MOMUS: God of ridicule.

MORPHEUS: God of dreams.

MORS: *See* Thanatos.

MORTA: *See* Fates.

MUSES: Goddesses presiding over arts and sciences: Calliope (epic poetry), Clio (history), Erato (lyric and love poetry), Euterpe (music), Melpomene (tragedy), Polymnia or Polyhymnia (sacred poetry), Terpsichore (choral dance and song), Thalia (comedy and bucolic poetry), Urania (astronomy); daughters of Zeus and Mnemosyne.

NAIADS: Nymphs of waters, streams, and fountains.

NAPAEAE: Wood nymphs.

NARCISSUS: Beautiful youth loved by Echo; in punishment for not returning her love, he was made to fall in love with his image reflected in pool; pined away and became flower.

NEMESIS: Goddess of retribution.

NEOPTOLEMUS: Son of Achilles; slew Priam; also known as Pyrrhus.

NEPTUNE: *See* Poseidon.

NEREIDS: Sea nymphs; attendants on Poseidon.

NESTOR: King of Pylos; noted for wise counsel in expedition against Troy.

NIKE: Goddess of victory.

NIOBE: Daughter of Tantalus; wife of Amphion; her children slain by Apollo and Artemis; changed to stone but continued to weep her loss.

NONA: *See* Fates.

NOTUS: *See* Winds.

NOX: *See* Nyx.

NYMPHS: Beautiful maidens; inferior deities of nature.

NYX (NOX): Goddess of night.

OCEANIDS: Ocean nymphs; daughters of Oceanus.

OCEANUS: Eldest of Titans; god of waters.

ODYSSEUS (ULYSSES): King of Ithaca; husband of Penelope; wandered ten years after fall of Troy before arriving home.

OEDIPUS: King of Thebes; son of Laius and Jocasta; unwittingly murdered Laius and married Jocasta; tore his eyes out when relationship was discovered.

OENONE: Nymph of Mount Ida; wife of Paris, who abandoned her; refused to cure him when he was poisoned by arrow of Philoctetes at Troy.

OPS: *See* Rhea.

OREADS: Mountain nymphs.

ORESTES: Son of Agamemnon and Clytemnestra; brother of Electra; slew Clytemnestra and Aegisthus; pursued by Furies until his purification by Apollo.

ORION: Hunter; slain by Artemis and made heavenly constellation.

ORPHEUS: Famed musician; son of Apollo and Muse Calliope; husband of Eurydice.

PALES: Roman goddess of shepherds and herdsmen.

PALINURUS: Aeneas' pilot; fell overboard in his sleep and was drowned.

PAN (FAUNUS): God of woods and fields; part goat; son of Hermes.

PANDORA: Opener of box containing human ills; mortal wife of Epimetheus.

PARCAE: *See* Fates.

PARIS: Son of Priam; gave apple of discord to Aphrodite, for which she enabled him to carry off Helen; slew Achilles at Troy; slain by Philoctetes.

PATROCLUS: Great friend of Achilles; wore Achilles' armor and was slain by Hector.

PEGASUS: Winged horse that sprang from Medusa's body at her death; ridden by Bellerophon when he slew Chimera.

PELIAS: King of Iolus; seized throne from his brother Aeson; sent Jason for Golden Fleece; slain unwittingly by his daughters at instigation of Medea.

PELOS: Son of Tantalus; his father cooked and served him to gods; restored to life; Peloponnesus named for him.

PENATES: Roman household gods.

PENELOPE: Wife of Odysseus; waited faithfully for him for ten years while putting off numerous suitors.

PEPHREDO: *See* Graeae.

PERIPHETES: Giant; son of Hephaestus; slain by Theseus.

PERSEPHONE (PROSERPINE): Queen of infernal regions; daughter of Zeus and Demeter; wife of Pluto.

PERSEUS: Son of Zeus and Danaë; slew Medusa; rescued Andromeda from monster and married her.

PHAEDRA: Daughter of Minos; wife of Theseus; falsely accused Hippolytus of trying to kidnap her.

PHAETHON: Son of Helios; drove his father's sun chariot and was struck down by Zeus before he set world on fire.

PHILOCTETES: Greek warrior who possessed Hercules' bow and arrows; slew Paris at Troy with poisoned arrow.

PHINEUS: Betrothed of Andromeda; tried to slay Perseus but turned to stone by Medusa's head.

PHLEGETHON: *See* Rivers.

PHOSPHOR: Morning star.

PHRIXOS: Brother of Helle; carried by ram of Golden Fleece to Colchis.

PIRITHOÛS: Son of Ixion; friend of Theseus; tried to carry off Persephone from Hades; bound to enchanted rock by Pluto.

PLEIADES: Alcyone, Celaeno, Electra, Maia, Merope, Sterope or Asterope, Taygeta; seven daughters of Atlas; transformed into heavenly constellation, of which six stars are visible (Merope is said to have hidden in shame for loving a mortal).

PLUTO (DIS): God of Hades; brother of Zeus.

PLUTUS: God of wealth.

POLLUX: *See* Dioscuri.

POLYMNIA: *See* Muses.

POLYNICES: Son of Oedipus; he and his brother Eteocles killed each other; burial rite, forbidden by Creon, performed by his sister Antigone.

POLYPHEMUS: Cyclops; devoured six of Odysseus' men; blinded by Odysseus.

POLYXENA: Daughter of Priam; betrothed to Achilles, whom Paris slew at their betrothal; sacrificed to shade of Achilles.

POMONA: Roman goddess of fruits.

PONTUS: Sea god; son of Gaea.

POSEIDON (NEPTUNE): God of sea; brother of Zeus.

PRIAM: King of Troy; husband of Hecuba; ransomed Hector's body from Achilles; slain by Neoptolemus.

PRIAPUS: God of regeneration.

PROCRIS: Wife of Cephalus, who accidentally slew her.

PROCRUSTES: Giant; stretched or cut off legs of victims to make them fit iron bed; slain by Theseus.

PROETUS: Husband of Antela; sent Belerophon to Iobates to be put to death.

PROTEUS: Sea god; assumed various shapes when called on to prophesy.

PSYCHE: Beloved of Eros; punished by jealous Aphrodite; made immortal and united with Eros.

PYGMALION: King of Cyprus; carved ivory statue of maiden which Aphrodite gave life as Galatea.

PYRAMUS: Babylonian youth; made love to Thisbe through hole in wall; thinking Thisbe slain by lion, killed himself.

PYRRHUS: *See* Neoptolemus.

PYTHON: Serpent born from slime left by Deluge; slain by Apollo.

QUIRINUS: Roman god.

REMUS: Brother of Romulus; slain by him.

RHADAMANTHUS: One of three judges of dead in Hades; son of Zeus and Europa.

RHEA (OPS): Daughter of Uranus and Gaea; wife of Cronus; mother of Zeus; identified with Cybele.

RIVERS OF UNDERWORLD: Acheron (woe), Cocytus (wailing), Lethe (forgetfulness), Phlegethon (fire), Styx (across which souls of dead were ferried by Charon).

ROMULUS: Founder of Rome; he and Remus suckled in infancy by she-wolf; slew Remus; deified by Romans.

SARPEDON: King of Lycia; son of Zeus and Europa; slain by Patroclus at Troy.

SATURN: *See* Cronus.

SATYRS: Hoofed demigods of woods and fields; companions of Dionysus.

SCIRON: Robber; forced strangers to wash his feet, then hurled them into sea where tortoise devoured them; slain by Theseus.

SCYLLA: Female monster inhabiting rock opposite Charybdis; menaced passing sailors.

SELENE: Goddess of moon.

SEMELE: Daughter of Cadmus; mother by Zeus of Dionysus; demanded Zeus appear before her in all his splendor and was destroyed by his lightnings.

SIBYLS: Various prophetesses; most famous, Cumaean sibyl, accompanied Aeneas into Hades.

SILENI: Minor woodland deities similar to satyrs (singular: silenus). Sometimes Silenus refers to eldest of satyrs, son of Hermes or of Pan.

SILVANUS: Roman god of woods and fields.

SINIS: Giant; bent pines, by which he hurled victims against side of mountain; slain by Theseus.

SIRENS: Minor deities who lured sailors to destruction with their singing.

SISYPHUS: King of Corinth; condemned in Tartarus to roll huge stone to top of hill; it always rolled back down again.

SOL: *See* Helios.

SOMNUS: *See* Hypnos.

SPHINX: Monster of Thebes; killed those who could not answer her riddle*; slain by Oedipus. Name also refers to other monsters having body of lion, wings, and head and bust of woman.

STEROPE: *See* Pleiades.

STHENO: *See* Gorgons.

STYX: *See* Rivers.

* What animal goes on 4 feet in morning, 2 at noon, 3 at night? Answer: Man (crawls when child, walks when adult, uses staff when old).

SYMPLEGADES: Clashing rocks at entrance to Black Sea; Argo passed through, causing them to become forever fixed.

SYRINX: Nymph pursued by Pan; changed to reeds, from which he made his pipes.

TANTALUS: Cruel king; father of Pelops and Niobe; condemned in Tartarus to stand chin-deep in lake surrounded by fruit branches; as he tried to eat or drink, water or fruit always receded.

TARTARUS: Underworld below Hades; often refers to Hades.

TAYGETA: *See* Pleiades.

TELEMACHUS: Son of Odysseus; made unsuccessful journey to find his father.

TELLUS: Roman goddess of earth.

TERMINUS: Roman god of boundaries and landmarks.

TERPSICHORE: *See* Muses.

TERRA: Roman earth goddess.

THALIA: *See* Graces; Muses.

THANATOS (MORS): God of death.

THEMIS: Titan goddess of laws of physical phenomena; daughter of Uranus; mother of Prometheus.

THESEUS: Son of Aegeus; slew Minotaur; married and deserted Ariadne; later married Phaedra.

THISBE: Beloved of Pyramus; killed herself at his death.

THYESTES: Brother of Atreus; Atreus killed three of his sons and served them to him at banquet.

TIRESIAS: Blind soothsayer of Thebes.

TISIPHONE: *See* Furies.

TITANS: Early gods from which Olympian gods were derived; children of Uranus and Gaea.

TITHONUS: Mortal loved by Eos; changed into grasshopper.

TRITON: Demigod of sea; son of Poseidon.

TURNUS: King of Rutuli in Italy; betrothed to Lavinia; slain by Aeneas.

ULYSSES: *See* Odysseus.

URANIA: *See* Muses.

URANUS: Personification of Heaven; husband of Gaea; father of Titans; dethroned by his son Cronus.

VENUS: *See* Aphrodite.

VERTUMNUS: Roman god of fruits and vegetables; husband of Pomona.

VESTA: *See* Hestia.

VULCAN: *See* Hephaestus.

WINDS: Aeolus (keeper of winds), Bo-reas (Aquilo) (north wind), Eurus (east wind), Notus (Auster) (south wind), Zephyrus (Favonius) (west wind).

ZEPHYRUS: *See* Winds.

ZEUS (JUPITER): Chief of Olympian gods; son of Cronus and Rhea; husband of Hera.

Norse Mythology

AESIR: Chief gods of Asgard.

ANDVARI: Dwarf; robbed of gold and magic ring by Loki.

ANGERBOTH (Angrbotha): Giantess; mother by Loki of Fenrir, Hel, and Midgard serpent.

ASGARD (Asgarth): Abode of gods.

ASK (Aske, Ask): First man; created by Odin, Hoenir, and Lothar.

ASYNJUR: Goddesses of Asgard.

ATLI: Second husband of Gudrun; invited Gunnar and Hogni to his court, where they were slain; slain by Gudrun.

AUDHUMLA (Audhumbla): Cow that nourished Ymir; created Buri by licking ice cliff.

BALDER (Baldr, Baldur): God of light, spring, peace, joy; son of Odin; slain by Hoth at instigation of Loki.

BFROST: Rainbow bridge connecting Midgard and Asgard.

BRAGI (Brage): God of poetry; husband of Ithunn.

BRANSTOCK: Great oak in hall of Vol-sungs; into it, Odin thrust Gram, which only Sigmund could draw forth.

BRYNHILD: Valkyrie; wakened from magic sleep by Sigurd; married Gunnar;

instigated death of Sigurd; killed herself and was burned on pyre beside Sigurd.

BUR (Bor): Son of Buri; father of Odin, Hoenir, and Lothar.

BURI (Bori): Progenitor of gods; father of Bur; created by Audhumla.

EMBLA: First woman; created by Odin, Hoenir, and Lothar.

FAFNIR: Son of Rodmar, whom he slew for gold in Otter's skin; in form of dragon, guarded gold; slain by Sigurd.

FENRIR: Wolf; offspring of Loki; swallows Odin at Ragnarok and is slain by Vitharr.

FORSETI: Son of Balder.

FREY (Freyr): God of fertility and crops; son of Njorth; originally one of Vanir.

FREYA (Freyja): Goddess of love and beauty; sister of Frey; originally one of Vanir.

FRIGG (Frigga): Goddess of sky; wife of Odin.

GARM: Watchdog of Hel; slays, and is slain by, Tyr at Ragnarok.

GIMLE: Home of blessed after Ragnarok.

GIUKI: King of Nibelungs; father of Gunnar, Hogni, Guttorm, and Gudrun.

GLATHSHEIM (Gladshheim): Hall of gods in Asgard.

GRAM (meaning "Angry"): Sigmund's sword; rewelded by Regin; used by Sigurd to slay Fafnir.

GREYFELL: Sigmund's horse; descended from Sleipnir.

GRIMHILD: Mother of Gudrun; administered magic potion to Sigurd which made him forget Brynhild.

GUDRUN: Daughter of Giuki; wife of Sigurd; later wife of Atli and Jonakr.

GUNNAR: Son of Giuki; in his semblance Sigurd won Brynhild for him; slain at hall of Atli.

GUTTORM: Son of Giuki; slew Sigurd at Brynhild's request.

HEIMDALL (Heimdallr): Guardian of Asgard.

HEL: Goddess of dead and queen of underworld; daughter of Loki.

HIORDIS: Wife of Sigmund; mother of Sigurd.

HOENIR: One of creators of Ask and Embla; son of Bur.

HOGNI: Son of Giuki; slain at hall of Atli.

HOTH (Hoder, Hodur): Blind god of night and darkness; slayer of Balder at instigation of Loki.

ITHUNN (Ithun, Iduna): Keeper of golden apples of youth; wife of Bragi.

JONAKR: Third husband of Gudrun.

JORMUNREK: Slayer of Swanhild; slain by sons of Gudrun.

JOTUNNHEIM (Jotunheim): Abode of giants.

LIF and **LIFTHRASIR**: First man and woman after Ragnarok.

LOKI: God of evil and mischief; instigator of Balder's death.

LOTHUR (Lodur): One of creators of Ask and Embla.

MIDGARD (Midgarth): Abode of mankind; the earth.

MIDGARD SERPENT: Sea monster; offspring of Loki; slays, and is slain by, Thor at Ragnarok.

MIMIR: Giant; guardian of well in Jotunnheim at root of Yggdrasill; knower of past and future.

MJOLLNIR: Magic hammer of Thor.

NAGLFAR: Ship to be used by giants in attacking Asgard at Ragnarok; built from nails of dead men.

NANNA: Wife of Balder.

NIBELUNGS: Dwellers in northern kingdom ruled by Giuki.

NIFLHEIM (Nifelheim): Outer region of cold and darkness; abode of Hel.

NJORTH: Father of Frey and Freya; originally one of Vanir.

NORNS: Demigoddesses of fate: Urth (Urdur) (Past), Verthandi (Verdandi) (Present), Skuld (Future).

ODIN (Othin): Head of Aesir; creator of world with Vili and Ve; equivalent to Woden (Wodan, Wotan) in Teutonic mythology.

OTTER: Son of Rodmar; slain by Loki; his skin filled with gold hoard of Andvari to appease Rodmar.

RAGNAROK: Final destruction of present world in battle between gods and giants; some minor gods will survive, and **Lif** and **Lifthrasir** will repeople world; known in Germany as *Götterdämmerung*, "Twilight of the Gods."

REGIN: Blacksmith; son of Rodmar; foster-father of Sigurd.

RERIR: King of Huns; son of Sigi.

RODMAR: Father of Regin, Otter, and Fafnir; demanded Otter's skin be filled with gold; slain by Fafnir, who stole gold.

SIF: Wife of Thor.

SIGGEIR: King of Goths; husband of Signy; he and his sons slew Volsung and his sons, except Sigmund; slain by Sigmund and Sinfliotli.

SIGI: King of Huns; son of Odin.

SIGMUND: Son of Volsung; brother of Signy, who bore him Sinfliotli; husband of Hiordis, who bore him Sigurd.

SIGNY: Daughter of Volsung; sister of Sigmund; wife of Siggeir; mother by Sigmund of Sinfliotli.

SIGURD: Son of Sigmund and Hiordis; awakened Brynhild from magic sleep; married Gudrun; slain by Guttorm at instigation of Brynhild.

SIGYN: Wife of Loki.

SINFLOTIL: Son of Sigmund and Signy.

SKULD: See Norns.

SLEIPNIR (Sleipner): Eight-legged horse of Odin.

SURT (Surtr): Fire demon; slays Frey at Ragnarok.

SVARTALFAHEIM: Abode of dwarfs.

SWANHILD: Daughter of Sigurd and Gudrun; slain by Jormunrek.

THOR: God of thunder; oldest son of Odin; equivalent to Germanic deity Donar.

TYR: God of war; son of Odin; equivalent to Tiu in Teutonic mythology.

ULL (Ullr): Son of Sif; stepson of Thor.

URTH: See Norns.

VALHALLA (Valhall): Great hall in Asgard where Odin received souls of heroes killed in battle.

VALI: Son of Odin; survivor of Ragnarok.

VALKYRIES: Virgins, messengers of Odin, who selected heroes to die in battle and took them to Valhalla; generally considered as nine in number.

VANIR: Early race of gods; three survivors, Njorth, Frey, and Freya, are associated with Aesir.

VE: Brother of Odin; one of creators of world.

VERTHANDI: See Norns.

VILI: Brother of Odin; one of creators of world.

VINGOLF: Abode of goddesses in Asgard.

VITHARR (Vithar): Son of Odin; survivor of Ragnarok.

VOLSUNG: King of Huns; son of Rerir; father of Signy, Sigmund, etc.; his descendants were called Volsungs.

YGGDRASIL: Giant ash tree springing from body of Ymir and supporting universe; its roots extended to Asgard, Jotunheim, and Nifheim.

YMIR (Ymer): Primeval frost giant killed by Odin, Vili, and Ve; world created from his body; also, from his body sprang Yggdrasil.

Egyptian Mythology

AARU: Abode of the blessed dead.

AMEN (Amon, Ammon): One of chief Theban deities; united with sun god under form of Amen-Ra.

AMENTI: Region of dead where souls were judged by Osiris.

ANUBIS: Guide of souls to Amenti; son of Osiris; jackal-headed.

APIS: Sacred bull, an embodiment of Ptah; identified with Osiris as Osiris-Apis or Serapis.

GEB (Keb, Seb): Earth god; father of Osiris; represented with goose on head.

HATHOR (Athor): Goddess of love and mirth; cow-headed.

HORUS: God of day; son of Osiris and Isis; hawk-headed.

ISIS: Goddess of motherhood and fertility; sister and wife of Osiris; sometimes shown as cow-headed.

KHEPERA: God of morning sun; represented by beetle.

KHNEMU (Khnun, Chnuphis, Chnemu, Chnum): Ram-headed god.

KHONSU (Khensu, Khuns): Son of Amen and Mut.

MENTU (Ment): Solar deity, sometimes considered god of war; falcon-headed.

MIN (Khem, Chem): Principle of physical life.

MUT (Maut): Wife of Amen.

NEPHTHYS: Goddess of the dead; sister and wife of Set.

NU: Chaos from which world was created, personified as a god.

NUT: Goddess of heavens; consort of Geb.

OSIRIS: God of underworld and judge of dead; son of Geb and Nut.

PTAH (Phtha): Chief deity of Memphis; father of gods and men.

RA: God of the Sun, the supreme god; son of Nut; Pharaohs claimed descent from him; represented as lion, cat, or falcon.

SERAPIS: God uniting attributes of Osiris and Apis.

SET (Seth): God of darkness or evil; brother and enemy of Osiris.

SHU: Solar deity; son of Ra and Hathor.

TEM (Atmu, Atum, Tum): Solar deity representing setting sun.

THOTH (Dhouti): God of wisdom and magic; scribe of gods; ibis-headed.

Opera and Operetta Composers

(The operas listed with each composer are not necessarily the only ones which he composed. Rather, they are those which remain best-known today—either because of occasional or frequent performances, or because of the popularity of overtures, arias, etc. The year and location after each opera are those of the first official performance.)

Auber, Daniel François (1782-1871): *Fra Diavolo* (1830, Paris).

Balfe, Michael (1808-1870): *The Bohemian Girl* (1843, London).

Beethoven, Ludwig van (1770-1827): *Fidelio* (1805, Vienna).

Bellini, Vincenzo (1801-1835): *La Sonnambula* (1831, Milan); *Norma* (1831, Milan); *I Puritani* (1835, Paris).

Berg, Alban (1885-1935): *Lulu* (1924, Berlin); *Wozzeck* (1937, Zürich).

Berlioz, Hector (1803-1869): *Benvenuto Cellini* (1838, Paris); *The Damnation of Faust* (1846, Paris); *Beatrice and Benedict* (1862, Baden-Baden); *Les Troyens* (*).

Bizet, Georges (1838-1875): *The Pearl Fishers* (1863, Paris); *Carmen* (1875, Paris).

Blitzstein, Marc (1905-): *The Cradle Will Rock* (1937, New York); *Regina* (1949, New York).

Boito, Arrigo (1842-1918): *Mefistofele* (1868, Milan).

Borodin, Alexander (1834-1887): *Prince Igor* (1890, Petrograd).

Britten, Benjamin (1913-): *Paul Bunyan* (1941, New York); *Peter Grimes* (1945, London); *The Rape of Lucrece* (1946, Glyndebourne, Eng.).

Charpentier, Gustave (1860-): *Louise* (1900, Paris).

Coward, Noel (1899-): *Bitter Sweet* (1929, London).

* Originally written as one opera but divided by Berlioz into two parts: *La Prise de Troie* and *Les Troyens à Carthage*. The second part was first performed in 1863 in Paris. The work as a whole was first performed in 1890 in Karlsruhe.

Damrosch, Walter (1862-1950): *The Scarlet Letter* (1896, Boston); *The Man Without a Country* (1937, New York).

Debussy, Claude (1862-1918): *Pelléas et Mélisande* (1902, Paris).

De Koven, Reginald (1859-1920): *Robin Hood* (1890, Chicago).

Delibes, Léo (1836-1891): *Lakmé* (1883, Paris).

Donizetti, Gaetano (1797-1848): *L'Elisir d'Amore* (1832, Milan); *Lucia di Lammermoor* (1835, Naples); *The Daughter of the Regiment* (1840, Paris); *Don Pasquale* (1843, Paris).

Falla, Manuel de (1876-1946): *La Vida Breve* (1913, Nice).

Flotow, Friedrich von (1812-1883): *Martha* (1847, Vienna).

Friml, Rudolf (1884-): *The Firefly* (1912, Syracuse, N. Y.); *Katinka* (1915, New York); *Rose Marie* (1924, New York); *The Vagabond King* (1925, New York).

Gershwin, George (1898-1937): *Porgy and Bess* (1935, New York).

Giordano, Umberto (1867-1948): *Andrea Chénier* (1896, Milan); *Madame Sans-Gêne* (1915, New York).

Glinka, Mikhail (1803-1857): *A Life for the Tsar* (1836, Petrograd); *Russian and Ludmilla* (1842, Petrograd).

Gluck, Christoph Willibald (1714-1787): *Orfeo ed Euridice* (1762, Vienna); *Alceste* (1767, Vienna); *Iphigenia in Aulis* (1777, Paris); *Iphigenia in Tauris* (1779, Paris).

Goldmark, Karl (1830-1915): *The Queen of Sheba* (1875, Vienna).

Gounod, Charles François (1818-1893): *Faust* (1859, Paris); *Romeo and Juliet* (1867, Paris).

Halévy, Jacques François (1799-1862): *La Juive* (1835, Paris).

Herbert, Victor (1859-1924): *The Fortune Teller* (1898, New York); *Babes in Toyland* (1903, Chicago); *Mlle. Modiste* (1905, New York); *The Red Mill* (1906, New York); *Naughty Marietta* (1910, New York); *Natoma* (1911, Philadelphia); *Sweethearts* (1913, Baltimore); *The Princess Pat* (1915, New York); *Eileen* (1917, New York).

Herold, Louis J. F. (1791-1833): *Zampa* (1831, Paris).

Humperdinck, Engelbert (1854-1921): *Hansel and Gretel* (1893, Weimar).

Kodály, Zoltán (1882-): *Háry János* (1926, Budapest).

Křenek, Ernst (1900-): *Jonny Spielt Auf* (1927, Leipzig).

Lehár, Franz (1870-1948): *The Merry Widow* (1907, London); *The Count of Luxembourg* (1909, Vienna); *Gypsy Love* (1911, New York).

Leoncavallo, Ruggero (1853-1919): *I Pagliacci* (1892, Milan).

Mascagni, Pietro (1863-1945): *Cavalleria Rusticana* (1890, Rome); *L'Amico Fritz* (1891, Rome).

Massenet, Jules (1842-1912): *Hérodiade* (1881, Brussels); *Manon* (1884, Paris); *Thaïs* (1894, Paris).

Menotti, Gian-Carlo (1911-): *Amelia Goes to the Ball* (1937, Philadelphia); *The Medium* (1946, New York); *The Telephone* (1947, New York); *The Consul* (1950, New York); *Amahl and the Night Visitors* (1951, New York*).

Meyerbeer, Giacomo (1791-1864): *Les Huguenots* (1836, Paris); *Le Prophète* (1849, Paris); *L'Africana* (1865, Paris).

Montemezzi, Italo (1875-1952): *L'Amore del Tre Re* (1913, Milan).

Mozart, Wolfgang Amadeus (1756-1791): *Idomeneo* (1781, Munich); *The Abduction from the Seraglio* (1782, Vienna); *The Marriage of Figaro* (1786, Vienna); *Don Giovanni* (1787, Prague); *Così fan Tutti* (1790, Vienna); *The Magic Flute* (1791, Vienna).

Musorgski, Modest (1835-1881): *Boris Godunov* (1874, Petrograd); *Khovanshchina* (1886, Petrograd).

Nicolai, Otto (1810-1849): *The Merry Wives of Windsor* (1849, Berlin).

Offenbach, Jacques (1819-1880): *Orpheus in Hades* (1858, Paris); *The Tales of Hoffmann* (1881, Paris).

Pepusch, John Christopher (1667-1732): *The Beggar's Opera* (1728, London).

Pergolesi, Giovanni Battista (1710-1736): *La Serva Padrona* (1733, Naples).

Planquette, Robert (1848-1903): *The Chimes of Normandy* (1877, Paris).

Ponchielli, Amilcare (1834-1886): *La Gioconda* (1876, Milan).

Prokofiev, Serge (1891-): *The Love for Three Oranges* (1921, Chicago).

Puccini, Giacomo (1858-1924): *Manon Lescaut* (1893, Turin); *La Bohème* (1896, Turin); *Tosca* (1900, Rome); *Madame Butterfly* (1904, Milan); *Girl of the Golden West* (1910, New York); *Turandot* (1926, Milan).

Purcell, Henry (1659-1695): *Dido and Aeneas* (1689, Chelsea, Eng.).

Ravel, Maurice (1875-1937): *L'Heure Espagnole* (1911, Paris); *L'Enfant et les Sortilèges* (1925, Monte Carlo).

Rimski-Korsakov, Nikolai (1844-1908): *The Snow Maiden* (1882, Petrograd); *Sadko* (1897, Moscow); *Le Coq d'Or* (1909, Moscow).

Romberg, Sigmund (1837-1951): *Maytime* (1917, New York); *Blossom Time* (1921, New York); *The Student Prince* (1924, New York); *The Desert Song* (1926, New York).

* First opera ever composed for television; presented over NBC TV network. First stage presentation: 1952, New York.

New York); *The New Moon* (1928, New York).

Rossini, Gioacchino (1792-1868): *The Barber of Seville* (1816, Rome); *Semiramide* (1823, Venice); *William Tell* (1829, Paris).

Saint-Saëns, Camille (1835-1920): *Samson et Dalila* (1877, Weimar).

Smetana, Bedřich (1824-1884): *The Bartered Bride* (1866, Prague).

Straus, Oskar (1870-): *The Chocolate Soldier* (1908, Vienna).

Strauss, Johann (1825-1899): *Die Fledermaus* (1874, Vienna); *The Gypsy Baron* (1885, Vienna).

Strauss, Richard (1864-1949): *Salome* (1905, Dresden); *Elektra* (1909, Dresden); *Der Rosenkavalier* (1911, Dresden); *Ariadne auf Naxos* (1912, Zürich).

Stravinsky, Igor (1882-): *The Nightingale* (1914, Paris).

Sullivan, Sir Arthur (1842-1900): *Trial by Jury* (1875, London); *The Sorcerer* (1877, London); *H.M.S. Pinafore* (1878, London); *The Pirates of Penzance* (1879, New York); *Patience* (1881, London); *Iolanthe* (1882, London); *Princess Ida* (1884, London); *The Mikado* (1885, London); *Ruddigore* (1887, London); *The Yeoman of the Guard* (1888, London); *The Gondoliers* (1889, London).

Suppé, Franz von* (1819-1895): *The Beautiful Galatea* (1865, Vienna); *Light Cavalry* (1866, Vienna).

Taylor, Deems (1885-): *The King's Henchman* (1927, New York); *Peter Ibbetson* (1931, New York).

*Suppé's popular *Poet and Peasant* overture was written for a play rather than for an operetta.

Derivations of the Names of the Months

January: From *Janus*, the two-faced Roman god who looked both into the future and the past.

February: From *februa*, Roman feast of purification held on the 15th of this month.

March: From *Mars*, the Roman god of war.

April: Derivation uncertain. Perhaps from the Latin word *aperire* (to open) in regard to the opening of trees and flowers.

May: Derivation uncertain. Perhaps from the Roman goddess *Maia*, or from the Latin word *matus* (great), which was applied to Jupiter. Also may derive from the Latin word *maiores*, as being dedicated to age.

June: Derivation uncertain. Perhaps

Tchaikovsky, Peter Ilich (1840-1893): *Eugene Onegin* (1879, Moscow); *Joan of Arc* (1881, Petrograd); *Pique Dame* (1890, Petrograd).

Thomas, Ambroise (1811-1896): *Mignon* (1866, Paris); *Hamlet* (1868, Paris).

Thomson, Virgil (1896-): *Four Saints in Three Acts* (1934, Hartford, Conn.).

Verdi, Giuseppe (1813-1901): *Ernani* (1844, Venice); *Rigoletto* (1851, Venice); *Il Trovatore* (1853, Rome); *La Traviata* (1853, Venice); *Simon Boccanegra* (1857, Venice); *A Masked Ball* (1859, Rome); *La Forza del Destino* (1862, Petrograd); *Don Carlos* (1867, Paris); *Aida* (1871, Cairo); *Otello* (1887, Milan); *Falstaff* (1893, Milan).

Wagner, Richard (1813-1883): *Rienzi* (1842, Dresden); *The Flying Dutchman* (1843, Dresden); *Tannhäuser* (1845, Dresden); *Lohengrin* (1850, Weimar); *Tristan and Isolde* (1865, Munich); *Die Meistersinger* (1868, Munich); *Das Rheingold* (1869, Munich); *Die Walküre* (1870, Munich); *Siegfried* (1876, Bayreuth); *Götterdämmerung* (1876, Bayreuth); *Parsifal* (1882, Bayreuth).

Weber, Karl Maria von (1786-1826): *Der Freischütz* (1821, Berlin); *Euryanthe* (1823, Vienna); *Oberon* (1826, London).

Weill, Kurt (1900-1950): *Die Dreigroschenoper* (1928, Berlin); *Street Scene* (1947, New York); *Down in the Valley* (1948, Bloomington, Ind.); *Lost in the Stars* (1949, New York).

Wolf-Ferrari, Ermanno (1876-1948): *The Secret of Suzanne* (1909, Munich); *The Jewels of the Madonna* (1911, Berlin).

from the Roman goddess *Juno*, or from the Latin word *juniores*, as being dedicated to youth. Also may derive from the consulate *Junius Brutus*.

July: From *Julius Caesar*. Originally called *Quintilis*.

August: From the Emperor *Augustus* of Rome. Originally called *Sextilis*.

September: From *septem*, the Latin word for seven. The Roman year originally had only ten months, beginning with March. January and February were later added.

October: From *octo*, the Latin word for eight.

November: From *novem*, the Latin word for nine.

December: From *decem*, the Latin word for ten.

Names of the Days

Sunday: From the *Sun*.

Monday: From the *Moon*.

Tuesday: From *Tyr*, the Norse god of war.

Wednesday: From *Woden*, the highest Anglo-Saxon god.

Thursday: From *Thor*, the Norse god of thunder.

Friday: From *Friga*, the wife of Woden.

Saturday: From the planet *Saturn*.

ASTRONOMY AND CALENDAR

Edited by

HUGH S. RICE, A.M., Ph.D., Research Associate, Hayden Planetarium



Kinds of Time

Of the three main kinds of time (sidereal, apparent solar, and mean solar), the two kinds used in our calendar pages (local civil and standard time) are both types of mean solar time.

Sidereal time is used mostly in astronomy. It is nearly but not exactly star-time, and is measured by the diurnal rotation of the vernal equinox point in the sky. Sidereal days are shorter than solar days by about $3^m 56^s$ of mean time.

Apparent solar time is measured by the apparent diurnal rotation of the sun, and is the hour-angle of the sun $+12^h$. When the sun is at lower transit we have 0^h by apparent time; when it is on the upper meridian the apparent time is 12^h . The sun is not a good timekeeper, its eastward motion along the ecliptic being irregular, so apparent days are of unequal duration.

Mean solar time is the hour-angle of the "mean sun" $+12^h$. The mean sun is an imaginary body moving uniformly along the celestial equator. When the mean sun is on the lower meridian, the mean time is 0^h . The actual sun is sometimes ahead of and sometimes behind the mean sun, and the difference at any moment is the *equation of time*. When the sun is west of the mean sun, we have the "sun fast" situation, and the sun crosses the meridian before the mean sun; when the sun is east of the mean sun, we have the "sun slow" condition, and the sun transits after the mean sun. The equation of time helps in conversion of apparent and mean solar time. No clock runs on apparent time but ordinary clocks keep mean solar time in some form.

Local civil time (L.C.T.) is the mean solar time of a designated meridian, and its day begins with the mean sun at lower transit. This is midnight, the moment of *zero hour* (0^h). Ordinary clocks are not set to local civil time, because this time--

at any instant--varies with any change of longitude.

Standard time is the local civil time of a standard meridian, but used over an entire time-zone. In the U. S. the four zones (Eastern, Central, Mountain, and Pacific) are based upon the standard meridians of 75° , 90° , 105° , and 120° respectively. Ordinary clocks run on standard time, a type of mean solar time. In the summer, in certain localities, they run on advanced time (as daylight saving time) but this is only a clock-setting, and is actually standard time. Daylight saving time for a certain zone is the normal standard time of one zone to the east. While popular in certain metropolitan areas, it is not used for scientific observations. Advanced time is 1^h later on the clock-face than the normal standard time of the same zone.

Time zones. A time-zone chart of the entire world shows clearly how the world is divided into 24 time zones according to longitude. In a large proportion of countries, standard time is in use, and commonly the time on the clock-face reads 1 hour later for each zone east of a given zone, and 1 hour earlier for each zone west of a given zone. The zero time-zone of the world runs thru Greenwich, Eng., and the zones are so marked that the standard time at a particular station, added algebraically to the zone-number at the bottom gives the corresponding universal time or Greenwich civil time. For example, 3 A.M., M.S.T. $+ 7^h = 10^h$ U.T. or G.C.T.

Mexico, except for the northern part of Lower California, uses 90th-meridian time entirely. Canada uses the 4 standard-time zones of the U. S., and two others: (1) 60th-meridian or Atlantic standard time, for New Brunswick, Nova Scotia, and Quebec (east of 68° w.), 4^h earlier than Greenwich, and (2) 135th-meridian or Yukon standard time, 9^h earlier than Greenwich

Newfoundland and the Labrador coast use Newfoundland standard time, 3^h 30^m earlier than Greenwich. Alaska uses 4 time-zones, those based on the following meridians of west longitude: 120° (Juneau), 135° or Yukon standard time (Yakutat), 150° or Alaska standard time (Fairbanks), and 165° (Nome).

The Date-line. At any moment of time, usually there are parts of two different but contiguous days going on at different places on the earth. The change of date is made at the date-line, an imaginary line that follows essentially the course of the 180° meridian in the Pacific Ocean. At points east of the date-line the calendar day is 1 day earlier than at places to the west of

the line. At a point just west of the date-line, let us suppose it is 18^h or 6 P.M., L.C.T., on Aug. 1. At the same moment it is 12^h at long. 90° e., 6^h at long. 0°, and 0^h at long. 90° w., all of the same date, Aug. 1. West of long. 90° w., it is not yet 0^h (midnight); hence between 90° w. and 180° the date must be July 31. As one crosses the date-line going eastward his watch remains the same but the date changes abruptly to 1 day earlier, so the traveler repeats part of a calendar day. As one crosses the line going westward the date changes abruptly to one day later, causing him to omit a calendar day. (According to actual practice, the change is made at night regardless of the true moment of crossing.)

On Using the Following Calendar Pages

Sun fast and sun slow. This is the equation of time, as previously discussed.

Sunrise and sunset. For accurate results, two corrections to the tabular values are necessary: (1) interpolation for latitude, and (2) reduction to standard time. When the observer is at a latitude between two given latitudes, he computes a time for sunrise or sunset that lies between the times shown for the given latitudes. (Our table of longitudes and latitudes is a guide for one's position, but a large atlas may be consulted.) For example, on Oct. 28 the sun rises at 6:24 A.M. at lat. 40° and at 6:32 at lat. 45°, the difference being +8^m. An observer at New Haven, Conn., lat. 41°19', would be about 0.26 the distance between 40° and 45°. $(0.26)(+8^m) = +2^m.1$ or +2^m; hence at New Haven sunrise occurs at 6:24 + 2^m or 6:26 A.M., L.C.T. The station (long. 72°55' w.) is 2°5' or 2°.1 east of the 75° standard meridian; $2.1(-4^m) = -8^m.4$; 6:26 - 8^m = 6:18 A.M., E.S.T., sunrise time.

In the sun and moon tables, the data has to be given in LOCAL CIVIL TIME. This is *not* standard time, but has to be reduced to standard time.

To reduce local civil time to standard time, decrease the L.C.T. by 4^m for every degree the station is east of the standard meridian, or increase the L.C.T. by 4^m for every degree the station is west of the standard meridian.

Moonrise and moonset. For accurate results at any station in the U. S., three corrections are needed: (1) interpolation for latitude, (2) correction for longitudes west of 82½°, and (3) reduction to standard time.

(1) Interpolation for latitude follows the same method as for the sun.

(2) Use of the *a-factor*. The moon tables are exact for the given latitudes and for longitude 75° w. The *a-factor* adapts them to any longitude in the U. S. For observers in the eastern states and as far west as long. 82½° [Port Huron, Mich., Mans-

field, Ohio; Huntington, W. Va., Asheville, N. C., Tampa, Fla.], no *a-factor* is used. For stations in the 90° zone, between 82½° and 97½°, use the *a-factor* in the column "90°". The "*a-factor*, moonrise" is always to be added to the time of moonrise as derived from the main tables, and the "*a-factor*, moonset" is added to the time of moonset as derived. The boundary at 97½°, between the 90° and the 105° zones, runs through Grafton, N. Dak., Webster, S. Dak., Norfolk, Nebr., Salina, Kans., Oklahoma City, Okla., Fort Worth and Corpus Christi, Tex. Observers in the 105° zone, between 97½° and 112½° long., will use the "105°" *a-factor*, and those west of 112½° will use the "120°" *a-factor*, the eastern boundary (112½°) of the 120° zone going through Butte, Mont., Pocatello, Idaho, Panguitch, Utah, and Prescott, Ariz. These zones do not correspond to the irregular divisions of the standard-time belts.

(3) Change L.C.T. to standard time.

Example: find moonrise on Apr. 18, 1953, at Lincoln, Nebr. (long. 96°40' w., lat. 40°50' n.). (a) Moonrise for 40° is 8:36 A.M.; for 45°, 8:14 A.M.; the difference is -22^m. Lincoln is 0.17 the distance from 40° to 45°; we have: $0.17(-22^m) = -3^m.74 = -4^m$; 8:36 - 4^m = 8:32 A.M. (b) Add *a-factor*, moonrise, for 90° [3^m or better 4^m for 97°]; 8:32 + 4^m = 8:36 A.M., L.C.T. (c) Reduce to standard time, 96°40' - 90° = 6°40'; hence Lincoln is 6°7' w. of the 90° meridian; $6.7(+4^m) = +26^m.8 = +27^m$; 8:36 + 27^m = 9:03 A.M., O.S.T., moonrise at Lincoln, Nebr.

Moon's transit. This data indicates the local civil time of the moon crossing the observer's meridian. The time is the same for all latitudes. It is nearly correct for all longitudes in the U. S.; for more exact work use—for every day—a mean *a-factor* of 2^m, 4^m, 6^m. That is, for the 75° zone, use no correction; for the 90° zone add 2^m to the time in the tables; for the 105° zone add 4^m; for the 120° zone add 6^m. Afterward, reduce the L.C.T. to standard time.

JANUARY

1953

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										C.S.T.										M.S.T.										P.S.T.																											
										d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m																		
										☾	8	4	9	☾	8	4	9	☾	8	3	9	☾	8	3	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9				
										☾	15	9	8	☾	15	8	8	☾	15	7	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8				
										☾	22	0	43	☾	21	11	43	☾	21	10	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43				
										☾	29	6	44	☾	29	5	44	☾	29	4	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44				
										C.S.T.										M.S.T.										P.S.T.																											
										d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m																		
										☾	8	4	9	☾	8	4	9	☾	8	3	9	☾	8	3	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9
										☾	15	9	8	☾	15	8	8	☾	15	7	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8
										☾	22	0	43	☾	21	11	43	☾	21	10	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43
										☾	29	6	44	☾	29	5	44	☾	29	4	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44
										C.S.T.										M.S.T.										P.S.T.																											
										d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m																		
										☾	8	4	9	☾	8	4	9	☾	8	3	9	☾	8	3	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9
										☾	15	9	8	☾	15	8	8	☾	15	7	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8
										☾	22	0	43	☾	21	11	43	☾	21	10	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43
										☾	29	6	44	☾	29	5	44	☾	29	4	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44	☾	29	3	44
										C.S.T.										M.S.T.										P.S.T.																											
										d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m	d	h	m																		
										☾	8	4	9	☾	8	4	9	☾	8	3	9	☾	8	3	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9	☾	8	2	9
										☾	15	9	8	☾	15	8	8	☾	15	7	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8	☾	15	6	8
										☾	22	0	43	☾	21	11	43	☾	21	10	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43	☾	21	9	43

Moon's phases

E.S.T.

d h m

☾ 8 5 9

☉ 15 9 8

☽ 22 0 43

☿ 29 6 44

♂ 29 5 44

C.S.T.

d h m

☾ 8 4 9

☉ 15 8 8

☽ 21 11 43

☿ 29 5 44

M.S.T.

d h m

☾ 8 3 9

☉ 15 7 8

☽ 21 10 43

☿ 29 4 44

P.S.T.

d h m

☾ 8 2 9

☉ 15 6 8

☽ 21 9 43

☿ 29 3 44

FEBRUARY 1953

FEBRUARY 1953										Moon's phases		E.S.T. d h m ☾ 6 11 9 ☾ 13 8 10 ☾ 20 12 44 ☉ 28 1 59		C.S.T. d h m ☾ 6 10 9 ☾ 13 7 10 ☾ 20 11 44 ☉ 28 12 59		M.S.T. d h m ☾ 6 9 9 ☾ 13 6 10 ☾ 20 10 44 ☉ 28 11 59		P.S.T. d h m ☾ 6 8 9 ☾ 13 5 10 ☾ 20 9 44 ☉ 28 10 59	
LOCAL CIVIL TIME Latitude 30° n.			LOCAL CIVIL TIME Latitude 35° n.			LOCAL CIVIL TIME Latitude 40° n.			LOCAL CIVIL TIME Latitude 45° n.			Moon's upper transit		a- factor, moonset					
Sun slow	a- factor, moonrise		Sun- rise set		Moon- rise set		Sun- rise set		Moon- rise set		Sun- rise set		Moon- rise set		Moon's upper transit		a- factor, moonset		
	90°	105° 120°	h m	m	h m	m	h m	m	h m	m	h m	m	h m	m	h m	m	90°	105° 120°	
1 Sun.	13 37	6 51	5 37	8 10	8 9	5 28	8 9	8 12	7 9	5 19	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
2 Mon.	13 45	6 50	5 38	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
3 Tue.	13 52	6 50	5 38	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
4 Wed.	13 58	6 49	5 39	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
5 Thu.	14 4	6 48	5 40	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
6 Fri.	14 8	6 48	5 41	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
7 Sat.	14 12	6 47	5 42	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
8 Sun.	14 15	6 46	5 43	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
9 Mon.	14 17	6 46	5 44	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
10 Tue.	14 19	6 45	5 44	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
11 Wed.	14 20	6 44	5 45	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
12 Thu.	14 19	6 43	5 46	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
13 Fri.	14 19	6 42	5 47	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
14 Sat.	14 17	6 42	5 48	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
15 Sun.	14 15	6 41	5 48	8 10	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
16 Mon.	14 12	6 40	5 49	8 9	8 9	5 29	8 9	8 12	7 9	5 20	8 7	8 15	7 21	5 7	8 5	8 19	1 47	1	2
17 Tue.	14 8	6 39	5 50	8 44	10 12	6 45	5 44	8 38	10 26	6 51	5 38	8 31	10 29	6 59	5 30	8 24	10 39	3 23	3
18 Wed.	14 4	6 38	5 51	9 21	11 19	6 44	5 45	9 12	11 30	6 50	5 39	9 2	11 43	6 57	5 31	8 50	11 58	4 16	3
19 Thu.	13 58	6 37	5 51	10 2	12 1	6 42	5 46	9 50	12 1	6 49	5 40	9 35	11 43	6 56	5 33	9 19	12 49	5 10	3
20 Fri.	13 52	6 36	5 52	10 46	12 4	6 41	5 47	10 33	12 4	6 47	5 41	10 15	11 54	6 54	5 34	9 56	12 49	5 10	3
21 Sat.	13 46	6 35	5 53	11 36	12 7	6 40	5 48	11 21	12 7	6 46	5 42	11 3	12 7	6 53	5 36	10 40	12 7	5 10	3
22 Sun.	13 39	6 34	5 54	12 31	12 24	6 39	5 49	12 15	12 24	6 44	5 43	11 56	12 24	6 51	5 37	11 34	12 24	7 54	2
23 Mon.	13 31	6 33	5 54	1 27	13 7	6 38	5 50	1 12	13 7	6 43	5 45	12 55	1 12	6 49	5 38	12 34	1 12	8 46	2
24 Tue.	13 22	6 32	5 55	2 25	13 1	6 37	5 51	2 11	13 1	6 42	5 46	1 57	13 1	6 48	5 40	1 39	1 57	9 35	2
25 Wed.	13 13	6 31	5 56	3 22	12 40	6 35	5 52	3 11	12 40	6 40	5 47	2 59	12 40	6 46	5 41	2 45	2 50	10 22	1
26 Thu.	13 3	6 30	5 57	4 17	12 14	6 34	5 53	4 10	12 14	6 39	5 48	4 0	12 14	6 44	5 43	3 50	4 0	11 5	1
27 Fri.	12 53	6 29	5 57	5 12	11 45	6 33	5 53	5 7	11 45	6 37	5 49	5 0	11 45	6 43	5 44	4 54	5 0	11 46	1
28 Sat.	12 42	6 28	5 58	6 5	11 36	6 32	5 54	6 3	11 36	6 36	5 50	6 0	11 36	6 41	5 45	5 57	6 26	.....	1

Moon's phases
E.S.T. d h m
C.S.T. d h m
M.S.T. d h m
P.S.T. d h m

☾ 6 11 9
☾ 13 8 10
☾ 20 12 44
☾ 28 1 59

☾ 6 10 9
☾ 13 7 10
☾ 20 11 44
☾ 28 12 59

☾ 6 9 9
☾ 13 6 10
☾ 20 10 44
☾ 28 11 59

☾ 6 8 9
☾ 13 5 10
☾ 20 9 44
☾ 28 10 59

MARCH

1953

Moon's
phases

E.S.T.

d h m

8 12 26

15 5 5

22 3 10

30 7 55

C.S.T.

d h m

8 12 26

15 5 5

22 2 10

30 6 55

M.S.T.

d h m

8 11 26

15 4 5

22 1 10

30 5 55

P.S.T.

d h m

8 10 26

15 3 5

22 0 10

30 4 55

Mar.	Sun slow	LOCAL CIVIL TIME Latitude 30° n.			LOCAL CIVIL TIME Latitude 35° n.			LOCAL CIVIL TIME Latitude 49° n.			LOCAL CIVIL TIME Latitude 45° n.			a- factor, moonrise		Moon's upper transit	Moon's set	Sun- rise	Sun- set	Moon- rise	Moon- set				
		Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set												
		m	s	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m		
1 Sun.	12 31	2 5	7	6 27	5 59	6 58	6 39	h	6 39	h	6 34	h	6 39	h	6 39	h	6 39	h	6 34	h	6 43	0 26	1	2	3
2 Mon.	12 19	3 5	7	6 26	6 0	7 51	7 6	h	6 29	5 56	7 54	7 28	6 33	5 52	7 58	7 2	6 37	5 48	8 2	7 0	1	5	1	2	3
3 Tue.	12 7	3 5	8	6 25	6 0	8 45	7 33	h	6 28	5 57	8 51	7 28	6 32	5 53	8 59	7 24	6 36	5 49	9 7	7 17	1	1	4	5	1
4 Wed.	11 54	3 5	8	6 23	6 1	9 41	8 2	h	6 27	5 58	9 50	7 55	6 30	5 53	10 9	7 46	6 34	5 51	10 13	7 37	2 26	1	2	3	3
5 Thu.	11 40	3 5	8	6 22	6 2	10 39	8 34	h	6 25	5 59	10 51	8 24	6 28	5 56	11 5	8 12	6 32	5 52	11 20	7 59	3 10	1	2	4	4
6 Fri.	11 27	3 5	8	6 21	6 2	11 39	9 11	h	6 24	6 0	11 53	8 58	6 27	5 57	.....	8 44	6 30	5 53	.....	8 27	3 58	2	3	5	5
7 Sat.	11 13	3 5	8	6 20	6 3	.....	9 54	h	6 22	6 0	.....	9 40	6 25	5 58	0 9	9 24	6 28	5 55	0 29	9 3	4 49	2	4	6	6
8 Sun.	10 58	3 5	8	6 19	6 4	0 39	10 46	h	6 21	6 1	0 55	10 30	6 24	5 59	1 14	10 12	6 27	5 56	1 36	9 50	5 43	2	5	7	7
9 Mon.	10 43	2 4	7	6 18	6 4	1 39	11 45	h	6 20	6 2	1 56	11 30	6 22	6 0	2 14	11 10	6 25	5 57	2 36	10 48	6 41	3	5	8	8
10 Tue.	10 28	2 4	6	6 17	6 5	2 34	12 50	h	6 19	6 3	2 49	12 36	6 21	6 1	3 7	12 18	6 23	5 59	3 28	11 59	7 40	3	6	9	9
11 Wed.	10 12	2 3	5	6 16	6 5	3 25	1 59	h	6 17	6 4	3 37	1 47	6 19	6 2	3 52	1 33	6 21	6 0	4 10	1 17	8 39	3	6	10	10
12 Thu.	9 57	1 3	4	6 14	6 6	4 10	3 10	h	6 16	6 5	4 19	3 1	6 18	6 3	4 30	2 50	6 19	6 1	4 44	2 39	9 36	3	6	10	10
13 Fri.	9 40	1 2	4	6 13	6 7	4 50	4 21	h	6 14	6 6	4 56	4 15	6 16	6 4	5 3	4 2	6 18	6 3	5 12	4 2	10 31	3	6	10	10
14 Sat.	9 24	1 2	3	6 12	6 7	5 26	5 30	h	6 13	6 6	5 30	5 29	6 14	6 5	5 33	5 27	6 16	6 4	5 37	5 25	11 24	3	6	10	10
15 Sun.	9 7	1 2	3	6 11	6 8	6 2	6 40	h	6 12	6 7	6 1	6 42	6 13	6 6	6 1	6 45	6 14	6 5	6 1	6 48	12 16	3	6	10	10
16 Mon.	8 50	1 2	4	6 10	6 9	6 37	7 50	h	6 10	6 8	6 33	7 55	6 11	6 7	6 29	8 2	6 12	6 6	6 24	8 10	1 9	3	6	10	10
17 Tue.	8 33	1 3	4	6 8	6 9	7 14	8 59	h	6 9	6 9	7 7	9 8	6 10	6 8	6 59	9 19	6 10	6 8	6 49	9 32	2 2	3	6	9	9
18 Wed.	8 16	2 3	5	6 7	6 10	7 55	10 8	h	6 8	6 10	7 45	10 20	6 8	6 9	7 32	10 35	6 8	6 9	7 17	10 53	2 58	3	6	9	9
19 Thu.	7 58	2 4	5	6 6	6 10	8 40	11 14	h	6 6	6 10	8 26	11 29	6 6	6 10	8 10	11 47	6 6	6 10	7 53	3 54	3	5	8	8	
20 Fri.	7 41	2 4	6	6 5	6 11	9 29	.....	h	6 5	6 11	9 14	.....	6 5	6 11	8 56	.....	6 4	6 12	8 35	0 6	4	3	5	8	8
21 Sat.	7 23	2 5	7	6 4	6 12	10 23	0 16	h	6 3	6 12	10 8	0 32	6 3	6 12	9 49	0 50	6 3	6 13	9 27	1 12	5 47	2	5	7	7
22 Sun.	7 5	3 5	8	6 2	6 13	11 20	1 11	h	6 2	6 13	11 5	1 27	6 1	6 13	10 48	1 45	6 1	6 14	10 26	2 6	6 41	2	4	6	6
23 Mon.	6 47	3 5	8	6 1	6 13	12 18	1 59	h	6 0	6 14	12 4	2 14	6 0	6 14	11 49	2 30	5 59	6 16	11 30	2 49	7 32	2	3	5	5
24 Tue.	6 29	3 5	8	6 0	6 14	1 16	2 40	h	5 59	6 14	1 4	2 52	5 58	6 15	12 51	3 6	5 57	6 17	12 36	3 23	8 19	1	3	4	4
25 Wed.	6 10	3 5	8	5 59	6 14	2 11	3 16	h	5 58	6 15	2 3	3 25	5 57	6 16	1 53	3 37	5 55	6 18	1 41	3 50	9 3	1	2	3	3
26 Thu.	5 52	3 5	7	5 57	6 15	3 6	3 47	h	5 56	6 16	3 1	3 55	5 55	6 18	2 53	4 3	5 53	6 19	2 45	4 12	9 45	1	2	3	3
27 Fri.	5 34	2 5	7	5 56	6 15	4 0	4 16	h	5 55	6 17	3 57	4 41	5 53	6 18	3 53	4 26	5 51	6 21	3 48	4 32	10 25	1	2	3	3
28 Sat.	5 15	2 5	7	5 55	6 16	4 53	4 43	h	5 54	6 18	4 52	4 25	5 52	6 20	4 51	4 47	5 50	6 22	4 51	4 50	11 41	1	2	3	3
29 Sun.	4 57	3 5	7	5 54	6 17	5 46	5 10	h	5 52	6 18	5 48	5 9	5 50	6 20	5 50	5 7	5 48	6 23	5 54	5 7	11 44	1	2	3	3
30 Mon.	4 39	3 5	8	5 53	6 17	6 40	5 37	h	5 51	6 19	6 45	5 33	5 48	6 22	6 51	5 29	5 46	6 24	6 59	5 24	.....	1	2	3	3
31 Tue.	4 20	3 5	8	5 51	6 18	7 36	6 5	h	5 49	6 20	7 43	5 59	5 47	6 22	7 53	5 52	5 44	6 26	8 4	5 43	0 25	1	2	3	3

APRIL 1953

Moon's
phases

E.S.T.
d h m

6 11 58
● 13 3 9
○ 23 11 20

C.S.T.
d h m

6 10 53
● 13 2 9
○ 23 10 20

M.S.T.
d h m

6 9 58
● 13 1 9
○ 23 9 20

P.S.T.
d h m

6 8 58
● 13 12 9
○ 23 8 20

Apr.	Sun slow	LOCAL CIVIL TIME Latitude 30° n.						LOCAL CIVIL TIME Latitude 35° n.						LOCAL CIVIL TIME Latitude 40° n.						LOCAL CIVIL TIME Latitude 45° n.					
		Sun			Moon			Sun			Moon			Sun			Moon			Sun			Moon		
		rise	set	h	rise	set	h	rise	set	h	rise	set	h	rise	set	h	rise	set	h	rise	set	h	rise	set	h
		a-factor, moonrise		90° 105° 120°		90° 105° 120°		a-factor, moonset		90° 105° 120°		90° 105° 120°		a-factor, moonset		90° 105° 120°		90° 105° 120°		a-factor, moonset		90° 105° 120°		90° 105° 120°	
1 Wed.	4 2	m	m	5 50	6 18	8 33	h	6 37	5 48	6 21	8 44	6 28	h	6 24	8 57	6 18	h	6 27	9 11	6 41	h	6 27	9 11	6 41	
2 Thu.	3 44	m	m	5 49	6 19	8 33	h	6 22	5 46	6 22	9 46	7 0	h	6 24	8 57	6 18	h	6 27	9 11	6 41	h	6 27	9 11	6 41	
3 Fri.	3 26	m	m	5 48	6 20	8 33	h	6 22	5 45	6 22	10 48	7 39	h	6 26	10 1	6 47	h	6 31	10 20	6 31	h	6 31	10 20	6 31	
4 Sat.	3 9	m	m	5 47	6 20	8 32	h	6 23	5 44	6 23	11 48	8 26	h	6 26	10 5	7 24	h	6 36	10 27	7 5	h	6 36	10 27	7 5	
5 Sun.	2 51	m	m	5 45	6 21	8 32	h	6 24	5 42	6 24	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
6 Mon.	2 34	m	m	5 44	6 21	8 32	h	6 25	5 41	6 25	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
7 Tue.	2 16	m	m	5 43	6 22	8 33	h	6 25	5 40	6 25	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
8 Wed.	1 59	m	m	5 42	6 23	8 34	h	6 26	5 39	6 26	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
9 Thu.	1 43	m	m	5 41	6 23	8 34	h	6 27	5 37	6 27	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
10 Fri.	1 26	m	m	5 40	6 24	8 35	h	6 28	5 36	6 28	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
11 Sat.	1 10	m	m	5 39	6 24	8 35	h	6 29	5 34	6 29	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
12 Sun.	0 54	m	m	5 37	6 25	8 36	h	6 30	5 32	6 30	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
13 Mon.	0 39	m	m	5 36	6 26	8 37	h	6 31	5 30	6 31	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
14 Tue.	0 24	m	m	5 35	6 26	8 37	h	6 32	5 29	6 32	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
15 Wed.	0 9	m	m	5 34	6 27	8 38	h	6 33	5 27	6 33	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
16 Thu.	FAST	m	m	5 33	6 27	8 38	h	6 34	5 26	6 34	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
17 Fri.	0 20	m	m	5 32	6 28	8 39	h	6 35	5 25	6 35	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
18 Sat.	0 34	m	m	5 31	6 29	8 40	h	6 36	5 24	6 36	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
19 Sun.	0 47	m	m	5 30	6 29	8 40	h	6 37	5 23	6 37	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
20 Mon.	1 0	m	m	5 29	6 30	8 41	h	6 38	5 22	6 38	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
21 Tue.	1 13	m	m	5 28	6 30	8 41	h	6 39	5 21	6 39	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
22 Wed.	1 25	m	m	5 26	6 31	8 42	h	6 40	5 20	6 40	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
23 Thu.	1 37	m	m	5 25	6 32	8 43	h	6 41	5 19	6 41	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
24 Fri.	1 49	m	m	5 24	6 32	8 43	h	6 42	5 18	6 42	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
25 Sat.	1 59	m	m	5 24	6 33	8 44	h	6 43	5 17	6 43	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
26 Sun.	2 10	m	m	5 22	6 34	8 45	h	6 44	5 15	6 44	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
27 Mon.	2 20	m	m	5 21	6 34	8 45	h	6 45	5 14	6 45	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
28 Tue.	2 29	m	m	5 20	6 35	8 46	h	6 46	5 13	6 46	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
29 Wed.	2 38	m	m	5 20	6 36	8 47	h	6 47	5 12	6 47	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	
30 Thu.	2 47	m	m	5 19	6 36	8 47	h	6 48	5 11	6 48	11 48	9 21	h	6 26	10 7	9 3	h	6 34	10 29	8 41	h	6 34	10 29	8 41	

MAY 1953

May	LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's phases	E.S.T. d h m ☾ 6 7 21 ☉ 13 0 6 ☽ 20 1 20 ○ 28 12 3	C.S.T. d h m ☾ 6 6 21 ☉ 12 11 6 ☽ 20 12 20 ○ 28 11 3	M.S.T. d h m ☾ 6 5 21 ☉ 12 10 6 ☽ 20 11 20 ○ 28 10 3	P.S.T. d h m ☾ 6 4 21 ☉ 12 9 6 ☽ 20 10 20 ○ 28 9 3				
	Sun fast		a- factor, moonrise		Sun- rise		Moon- rise		Sun- rise		Moon- rise		Sun- rise		Moon- rise							Moon's upper transit		a- factor, moonset	
	m	s	m	90° 105° 120°	h	m	h	m	h	m	h	m	h	m	h	m						h	m	h	m	90° 105° 120°	m	s
1 Fri.	2 55	2	5	7	5 18	6 37	9 26	6 40	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	
2 Sat.	3 2	2	4	6	5 17	6 38	10 23	7 34	5 9	6 46	10 38	7 18	5 0	6 55	10 57	6 59	4 49	7 6	11 18	6 37	2 30	2	5		
3 Sun.	3 9	2	4	6	5 16	6 38	11 15	8 33	5 8	6 46	11 30	8 19	4 58	6 56	11 46	8 1	4 47	7 7	.....	5	8	3	6	
4 Mon.	3 15	2	3	5	5 15	6 39	.....	9 38	5 7	6 47	.....	9 24	4 57	6 57	.....	9 9	4 46	7 8	0 5	8 50	4 24	3	6
5 Tue.	3 21	2	3	4	5 14	6 40	0 1	10 44	5 6	6 48	0 13	10 33	4 56	6 58	0 26	10 20	4 44	7 10	0 43	10 5	5 20	3	6		
6 Wed.	3 26	1	3	4	5 13	6 40	0 42	11 50	5 5	6 49	0 51	11 42	4 55	6 59	1 1	11 33	4 43	7 11	1 13	11 23	6 13	3	6		
7 Thu.	3 31	1	2	3	5 12	6 41	1 19	12 56	5 4	6 50	1 25	12 51	4 54	7 0	1 32	12 46	4 42	7 12	1 39	12 49	7 4	3	6		
8 Fri.	3 34	1	2	3	5 12	6 41	1 54	2 1	5 3	6 50	1 56	2 1	4 52	7 1	1 59	1 59	4 40	7 13	2 3	1 58	7 53	3	6		
9 Sat.	3 38	1	2	3	5 11	6 42	2 27	3 7	5 2	6 51	2 26	3 10	4 51	7 2	2 26	3 12	4 39	7 14	2 25	3 16	8 43	3	6		
10 Sun.	3 41	1	2	4	5 10	6 43	3 1	4 14	5 1	6 52	2 58	4 20	4 50	7 3	2 53	4 27	4 38	7 16	2 47	4 36	9 33	3	6		
11 Mon.	3 43	1	3	4	5 10	6 43	3 38	5 22	5 0	6 53	3 31	5 32	4 49	7 4	3 23	5 43	4 36	7 17	3 12	5 56	10 26	3	6		
12 Tue.	3 44	2	3	5	5 9	6 44	4 19	6 31	4 59	6 54	4 8	6 44	4 48	7 5	3 56	6 58	4 35	7 18	3 41	7 16	11 22	3	6		
13 Wed.	3 45	2	4	6	5 8	6 45	5 5	7 39	4 58	6 54	4 52	7 55	4 47	7 6	4 36	8 11	4 34	7 19	4 18	8 31	12 20	3	6		
14 Thu.	3 46	2	4	7	5 8	6 45	5 57	8 43	4 58	6 55	5 42	8 59	4 46	7 7	5 25	9 16	4 33	7 20	5 3	9 38	1 19	2	5		
15 Fri.	3 46	3	5	7	5 7	6 46	6 53	9 40	4 57	6 56	6 38	9 55	4 45	7 8	6 20	10 13	4 32	7 22	5 59	10 34	2 17	2	4		
16 Sat.	3 45	3	5	8	5 6	6 46	7 54	10 28	4 56	6 57	7 39	10 42	4 44	7 9	7 22	10 58	4 30	7 23	7 1	11 17	3 13	2	3		
17 Sun.	3 44	3	5	8	5 6	6 47	8 54	11 10	4 55	6 58	8 41	11 21	4 44	7 10	8 26	11 36	4 29	7 24	8 8	11 50	4 5	1	3		
18 Mon.	3 42	3	5	8	5 5	6 48	9 53	11 46	4 54	6 58	9 42	11 55	4 42	7 10	9 30	.....	4 28	7 25	9 16	.....	4 53	1	2
19 Tue.	3 40	3	5	8	5 4	6 48	10 50	.....	4 56	6 59	10 42	.....	4 42	7 11	10 33	0 5	4 27	7 26	10 23	0 17	5 37	1	2
20 Wed.	3 37	3	5	7	5 4	6 49	11 45	0 17	4 53	7 0	11 40	0 24	4 41	7 12	11 33	0 31	4 26	7 27	11 27	0 39	6 19	1	2		
21 Thu.	3 33	2	5	7	5 4	6 50	12 38	0 46	4 53	7 1	12 36	0 50	4 40	7 13	12 33	0 54	4 25	7 28	12 30	0 59	6 59	1	2		
22 Fri.	3 29	2	5	7	5 3	6 50	1 31	1 13	4 52	7 1	1 31	1 14	4 39	7 14	1 31	1 15	4 24	7 29	1 32	1 17	7 39	1	2		
23 Sat.	3 25	3	5	8	5 2	6 51	2 24	1 40	4 51	7 2	2 27	1 38	4 38	7 15	2 31	1 36	4 23	7 30	2 35	1 34	8 19	1	2		
24 Sun.	3 20	3	5	8	5 2	6 52	3 19	2 8	4 51	7 3	3 24	2 3	4 38	7 16	3 32	1 58	4 23	7 31	3 40	1 52	9 1	1	2		
25 Mon.	3 15	3	5	8	5 2	6 52	4 15	2 38	4 50	7 4	4 24	2 30	4 37	7 17	4 34	2 22	4 22	7 32	4 46	2 13	9 45	1	2		
26 Tue.	3 9	3	5	8	5 1	6 53	5 15	3 10	4 50	7 4	5 26	3 1	4 37	7 17	5 39	2 49	4 21	7 33	5 55	2 36	10 34	1	3		
27 Wed.	3 2	3	5	8	5 1	6 53	6 16	3 48	4 49	7 5	6 20	3 37	4 36	7 18	6 45	3 22	4 20	7 34	7 4	3 5	11 26	2	4		
28 Thu.	2 55	3	5	8	5 0	6 54	7 16	4 33	4 49	7 6	7 32	4 19	4 35	7 19	7 51	4 3	4 19	7 35	8 12	3 43	.....	2	5	
29 Fri.	2 48	2	4	7	5 0	6 54	8 16	5 26	4 48	7 6	8 32	5 11	4 35	7 28	8 50	4 52	4 19	7 36	9 12	4 31	0 22	2	5		
30 Sat.	2 40	2	4	6	5 0	6 55	9 10	6 25	4 46	7 7	9 26	6 10	4 34	7 21	9 43	5 53	4 18	7 37	10 3	5 31	1 20	3	5		
31 Sun.	2 32	2	3	5	5 0	6 56	9 59	7 30	4 48	7 8	10 12	7 15	4 34	7 21	10 26	7 0	4 17	7 38	10 43	6 40	2 19	3	6		

JUNE 1953

June	LOCAL CIVIL TIME Latitude 30° n.			LOCAL CIVIL TIME Latitude 35° n.			LOCAL CIVIL TIME Latitude 40° n.			LOCAL CIVIL TIME Latitude 45° n.			Moon's phases		
	Sun fast	a- factor, moonrise		Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Moon's upper transit	Moon's phases	
		90°	105°											90°	105°
1 Mon.	m s	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m
2 Tue.	2 24	3 4	4	4 59	6 56	10 42	8 36	7 8	10 51	8 25	4 33	7 22	11 3	6 9	9
3 Wed.	2 14	1 2	4	4 59	6 57	11 20	9 43	7 9	11 27	9 34	4 32	7 23	11 34	6 9	9
4 Thu.	2 5	1 2	3	4 59	6 57	11 55	10 49	7 9	11 58	10 43	4 32	7 24	11 34	6 9	9
5 Fri.	1 55	1 1	2	4 59	6 58	11 53	10 46	7 10	11 51	10 43	4 32	7 24	11 34	6 9	9
6 Sat.	1 45	1 2	3	4 58	6 58	12 58	11 53	7 10	12 59	11 51	4 32	7 25	11 34	6 9	9
7 Sun.	1 34	1 2	3	4 58	6 59	1 1	2 3	4 46	1 0	2 27	4 32	7 26	11 34	6 9	9
8 Mon.	1 23	1 1	2	4 58	6 59	1 37	3 9	4 46	1 30	3 17	4 31	7 26	11 34	6 9	9
9 Tue.	1 12	1 3	4	4 58	7 0	2 14	4 16	4 45	2 44	5 36	4 31	7 27	11 34	6 9	9
10 Wed.	1 1	2	4	4 58	7 0	2 57	5 46	4 45	3 32	6 43	4 31	7 28	11 34	6 9	9
11 Thu.	0 49	2	4	4 58	7 0	3 46	6 28	4 45	4 25	7 43	4 30	7 28	11 34	6 9	9
12 Fri.	0 37	2	5	4 58	7 1	4 40	7 27	4 45	5 24	8 34	4 30	7 29	11 34	6 9	9
13 Sat.	0 24	3	5	4 58	7 1	5 39	8 20	4 45	6 26	9 17	4 30	7 29	11 34	6 9	9
14 Sun.	0 12	3	5	4 58	7 2	6 40	9 4	4 45	7 28	9 53	4 30	7 30	11 34	6 9	9
15 Mon.	SLOW 0 13	3	5	4 58	7 2	7 40	10 16	4 45	8 29	10 24	4 30	7 30	11 34	6 9	9
16 Tue.	0 25	3	5	4 58	7 2	8 39	10 46	4 45	9 29	10 50	4 30	7 31	11 34	6 9	9
17 Wed.	0 52	2	5	4 58	7 3	10 23	11 14	4 45	10 26	11 16	4 30	7 31	11 34	6 9	9
18 Thu.	0 39	2	5	4 59	7 3	11 22	11 41	4 45	11 21	11 40	4 30	7 31	11 34	6 9	9
19 Fri.	1 5	2	5	4 59	7 4	12 15	12 15	4 46	12 17	12 17	4 30	7 32	11 34	6 9	9
20 Sat.	1 18	3	5	4 59	7 4	1 8	0 8	4 46	1 13	0 4	4 31	7 32	11 34	6 9	9
21 Sun.	1 31	3	5	4 59	7 4	2 3	0 36	4 46	2 11	0 30	4 31	7 32	11 34	6 9	9
22 Mon.	1 44	3	5	4 59	7 4	3 0	1 7	4 46	3 11	0 59	4 31	7 32	11 34	6 9	9
23 Tue.	1 57	3	5	5 0	7 4	4 1	1 43	4 47	4 14	1 32	4 32	7 33	11 34	6 9	9
24 Wed.	2 10	3	5	5 0	7 4	5 3	2 25	4 47	5 17	2 12	4 32	7 33	11 34	6 9	9
25 Thu.	2 23	2	5	5 0	7 5	6 3	3 14	4 47	6 19	2 59	4 32	7 33	11 34	6 9	9
26 Fri.	2 35	2	4	5 0	7 5	7 1	4 12	4 47	7 17	3 56	4 32	7 33	11 34	6 9	9
27 Sat.	2 48	2	4	5 0	7 5	7 5	4 7	4 48	8 7	5 1	4 33	7 33	11 34	6 9	9
28 Sun.	3 0	1	3	5 1	7 5	8 39	6 23	4 48	8 50	6 11	4 33	7 33	11 34	6 9	9
29 Mon.	3 12	1	2	5 1	7 5	9 27	7 32	4 49	9 27	7 22	4 33	7 33	11 34	6 9	9
30 Tue.	3 24	1	2	5 2	7 5	9 56	8 40	4 49	10 0	8 34	4 34	7 33	11 34	6 9	9

JULY

1953

	LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a- factor, moonset	
	Sun slow	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- set				
																90°				105°	120°
July	m s	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m
1 Wed.	3 36	5 22	7 50	9 46	4 49	7 18	10 31	9 43	4 34	7 33	10 32	9 40	4 16	7 50	10 34	9 36	3 47	3	6
2 Thu.	3 48	5 27	7 51	10 51	4 50	7 18	11 1	10 52	4 35	7 33	10 59	10 52	4 17	7 50	10 56	10 53	4 37	3	6
3 Fri.	3 59	5 31	7 51	11 37	4 50	7 18	11 32	12 0	4 35	7 32	11 26	12 4	4 18	7 50	11 19	12 10	5 26	3	6
4 Sat.	4 10	5 33	7 51	12 10	4 50	7 18	12 10	1 8	4 36	7 32	11 56	1 17	4 18	7 50	11 45	1 27	6 15	3	6
5 Sun.	4 21	5 34	7 51	12 57	4 51	7 18	0 5	2 17	4 36	7 32	12 32	2 29	4 19	7 49	12 23	2 43	7 6	3	6
6 Mon.	4 31	5 35	7 51	1 33	4 51	7 17	0 42	3 26	4 37	7 32	0 29	3 40	4 20	7 49	0 14	3 59	8 0	3	6
7 Tue.	4 41	5 36	7 51	2 10	4 52	7 17	1 26	4 33	4 38	7 32	1 10	4 49	4 20	7 49	0 51	5 10	8 56	3	8
8 Wed.	4 51	5 37	7 51	2 51	4 53	7 17	2 16	5 33	4 38	7 31	1 58	5 51	4 21	7 48	1 37	6 12	9 54	2	5
9 Thu.	5 0	5 38	7 51	3 27	4 53	7 16	3 12	6 27	4 39	7 31	2 55	6 44	4 22	7 48	2 33	7 5	10 51	2	4
10 Fri.	5 9	5 39	7 51	4 27	4 54	7 16	4 13	7 13	4 40	7 30	3 56	7 28	4 22	7 47	3 36	7 46	11 45	2	3
11 Sat.	5 18	5 40	7 51	5 27	4 54	7 16	5 15	8 23	4 40	7 30	5 1	8 3	4 23	7 47	4 43	8 18	12 37	1	3
12 Sun.	5 26	5 41	7 51	6 27	4 55	7 16	6 17	9 23	4 41	7 30	6 5	9 33	4 24	7 46	5 52	8 44	1 25	1	2
13 Mon.	5 34	5 42	7 51	7 24	4 56	7 15	7 17	10 31	4 42	7 29	7 9	10 41	4 25	7 46	6 59	9 6	2 9	1	2
14 Tue.	5 41	5 43	7 51	8 19	4 56	7 15	8 15	11 41	4 42	7 29	8 9	12 1	4 26	7 45	8 4	9 25	2 51	1	2
15 Wed.	5 47	5 44	7 51	9 13	4 57	7 15	9 11	12 48	4 43	7 28	9 9	12 48	4 27	7 44	9 7	9 43	3 31	1	2
16 Thu.	5 53	5 45	7 51	10 6	4 57	7 14	10 7	13 57	4 44	7 28	10 8	13 57	4 28	7 44	10 10	10 1	4 10	1	2
17 Fri.	5 59	5 46	7 51	10 59	4 58	7 14	11 3	14 50	4 44	7 27	11 7	14 50	4 28	7 43	11 12	10 19	4 50	1	2
18 Sat.	6 4	5 47	7 51	11 52	4 59	7 13	11 59	15 58	4 45	7 26	12 7	15 58	4 29	7 42	12 16	10 39	5 32	1	2
19 Sun.	6 9	5 48	7 51	12 48	4 59	7 12	12 57	16 58	4 46	7 26	1 8	16 58	4 30	7 41	1 21	11 2	6 16	1	3
20 Mon.	6 13	5 49	7 51	1 46	5 0	7 12	1 58	18 0	4 47	7 25	2 12	18 0	4 31	7 40	2 28	11 32	7 4	2	3
21 Tue.	6 16	5 50	7 51	2 47	5 1	7 11	3 1	19 0	4 48	7 24	3 17	19 0	4 32	7 39	3 36	8 18	8 18	2	4
22 Wed.	6 19	5 51	7 51	3 47	5 1	7 11	4 2	20 0	4 49	7 23	4 20	20 0	4 33	7 38	4 43	9 11	9 11	2	4
23 Thu.	6 21	5 52	7 51	4 46	5 2	7 10	5 1	21 0	4 50	7 23	5 20	21 0	4 34	7 38	5 42	10 3	10 3	2	5
24 Fri.	6 23	5 53	7 51	5 41	5 3	7 10	5 56	22 0	4 51	7 22	6 13	22 0	4 36	7 36	6 32	11 2	11 2	3	6
25 Sat.	6 24	5 54	7 51	6 30	5 4	7 9	6 43	23 0	4 51	7 21	7 6	23 0	4 37	7 36	7 13	12 1	12 1	3	6
26 Sun.	6 24	5 55	7 51	7 14	5 4	7 8	7 23	24 0	4 52	7 20	7 34	24 0	4 38	7 34	8 1	13 1	13 1	3	6
27 Mon.	6 24	5 56	7 51	8 2	5 5	7 7	8 11	25 0	4 53	7 19	8 6	25 0	4 39	7 33	9 1	14 1	14 1	3	6
28 Tue.	6 23	5 57	7 51	9 2	5 6	7 7	9 11	26 0	4 54	7 18	8 55	7 23	4 40	7 32	10 1	15 1	15 1	3	6
29 Wed.	6 22	5 58	7 51	10 2	5 6	7 6	10 1	27 0	4 55	7 17	9 6	27 0	4 41	7 31	11 1	16 1	16 1	3	6
30 Thu.	6 20	5 59	7 51	11 2	5 7	7 5	11 1	28 0	4 56	7 16	9 29	28 0	4 42	7 30	12 1	17 1	17 1	3	6
31 Fri.	6 18	5 60	7 51	12 2	5 8	7 4	12 1	29 0	4 56	7 15	10 59	29 0	4 43	7 29	13 1	18 1	18 1	3	6

Moon's
phases

E.S.T.
d h m
☾ 3 5 3
☉ 10 9 28
☽ 18 11 47
☿ 26 7 20

C.S.T.
d h m
☾ 3 4 3
☉ 10 8 28
☽ 18 10 47
☿ 26 6 20

M.S.T.
d h m
☾ 3 3 3
☉ 10 7 28
☽ 18 9 47
☿ 26 5 20

P.S.T.
d h m
☾ 3 2 3
☉ 10 6 28
☽ 18 8 47
☿ 26 4 20

AUGUST 1953

Aug.	LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.			
	Sun slow		Moon-rise		Sun-rise		Moon-rise		Sun-rise		Moon-rise		Sun-rise		Moon-rise	
	a- factor, moonsrise		Moon-rise		Sun-rise		Moon-rise		Sun-rise		Moon-rise		Sun-rise		Moon-rise	
	90°	105°	120°	90°	105°	120°	90°	105°	120°	90°	105°	120°	90°	105°	120°	90°
1 Sat.	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
2 Sun.	6 15	6 15	5 18	5 18	5 18	5 18	5 18	5 18	5 18	5 18	5 18	5 18	5 18	5 18	5 18	5 18
3 Mon.	6 11	6 11	5 19	5 19	5 19	5 19	5 19	5 19	5 19	5 19	5 19	5 19	5 19	5 19	5 19	5 19
4 Tue.	6 7	6 7	5 20	5 20	5 20	5 20	5 20	5 20	5 20	5 20	5 20	5 20	5 20	5 20	5 20	5 20
5 Wed.	5 56	5 56	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21
6 Thu.	5 50	5 50	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21	5 21
7 Fri.	5 47	5 47	5 22	5 22	5 22	5 22	5 22	5 22	5 22	5 22	5 22	5 22	5 22	5 22	5 22	5 22
8 Sat.	5 44	5 44	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23
9 Sun.	5 29	5 29	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23
10 Mon.	5 20	5 20	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24
11 Tue.	5 12	5 12	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24	5 24
12 Wed.	5 2	5 2	5 25	5 25	5 25	5 25	5 25	5 25	5 25	5 25	5 25	5 25	5 25	5 25	5 25	5 25
13 Thu.	4 52	4 52	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26
14 Fri.	4 41	4 41	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26	5 26
15 Sat.	4 30	4 30	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27
16 Sun.	4 18	4 18	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27	5 27
17 Mon.	4 6	4 6	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28
18 Tue.	3 53	3 53	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28	5 28
19 Wed.	3 40	3 40	5 29	5 29	5 29	5 29	5 29	5 29	5 29	5 29	5 29	5 29	5 29	5 29	5 29	5 29
20 Thu.	3 26	3 26	5 30	5 30	5 30	5 30	5 30	5 30	5 30	5 30	5 30	5 30	5 30	5 30	5 30	5 30
21 Fri.	3 12	3 12	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31
22 Sat.	2 57	2 57	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31
23 Sun.	2 42	2 42	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31	5 31
24 Mon.	2 26	2 26	5 32	5 32	5 32	5 32	5 32	5 32	5 32	5 32	5 32	5 32	5 32	5 32	5 32	5 32
25 Tue.	2 10	2 10	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33
26 Wed.	1 53	1 53	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33	5 33
27 Thu.	1 36	1 36	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34
28 Fri.	1 19	1 19	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34	5 34
29 Sat.	1 1	1 1	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35
30 Sun.	0 43	0 43	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35	5 35
31 Mon.	0 25	0 25	5 36	5 36	5 36	5 36	5 36	5 36	5 36	5 36	5 36	5 36	5 36	5 36	5 36	5 36

SEPTEMBER 1953

Moon's phases
 E.S.T.
 d h m
 8 2 47
 16 4 49
 22 11 15
 29 4 51
 C.S.T.
 d h m
 8 1 47
 16 3 49
 22 10 15
 29 3 51
 M.S.T.
 d h m
 8 0 47
 16 2 49
 22 9 15
 29 2 51
 P.S.T.
 d h m
 7 11 47
 16 1 49
 22 8 15
 29 1 51

Sun fast	LOCAL CIVIL TIME Latitude 30° n.			LOCAL CIVIL TIME Latitude 35° n.			LOCAL CIVIL TIME Latitude 40° n.			LOCAL CIVIL TIME Latitude 45° n.			Moon's upper transit	a- factor, moonset		
	Sun rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set		90°	105°	120°
Sept. 1 Tue.	m	m	m	h	m	h	h	m	h	m	h	m	h	m	m	m
2 Wed.	5 36	6 23	2 4	5 32	6 28	11 59	5 27	6 33	11 42	2 37	6 38	11 21	6 40	2 4	6	6
3 Thu.	5 37	6 22	2 54	5 33	6 25	11 58	5 28	6 31	11 41	3 26	6 36	11 20	6 41	2 4	6	6
4 Fri.	5 38	6 21	3 38	5 34	6 24	11 57	5 29	6 30	11 40	4 5	6 35	11 19	6 42	2 4	6	6
5 Sat.	5 38	6 20	4 16	5 34	6 23	11 56	5 30	6 29	11 39	5 4	6 34	11 18	6 43	2 4	6	6
6 Sun.	5 39	6 18	4 59	5 35	6 22	11 55	5 31	6 28	11 38	5 6	6 33	11 17	6 44	2 4	6	6
7 Mon.	5 39	6 17	4 6	5 36	6 21	11 54	5 32	6 27	11 37	5 5	6 32	11 16	6 45	2 3	3	3
8 Tue.	5 40	6 16	5 0	5 36	6 19	11 53	5 32	6 25	11 36	5 52	6 31	11 15	6 46	2 3	3	3
9 Wed.	5 40	6 15	5 54	5 37	6 18	11 52	5 33	6 24	11 35	5 53	6 30	11 14	6 47	2 3	3	3
10 Thu.	5 41	6 14	6 46	5 38	6 16	11 51	5 34	6 23	11 34	5 54	6 29	11 13	6 48	2 3	3	3
11 Fri.	5 41	6 12	7 39	5 39	6 15	11 50	5 35	6 22	11 33	5 55	6 28	11 12	6 49	2 3	3	3
12 Sat.	5 42	6 11	8 32	5 39	6 14	11 49	5 36	6 21	11 32	5 56	6 27	11 11	6 50	2 3	3	3
13 Sun.	5 42	6 10	9 28	5 40	6 13	11 48	5 37	6 20	11 31	5 57	6 26	11 10	6 51	2 3	3	3
14 Mon.	5 43	6 9	10 25	5 41	6 12	11 47	5 38	6 19	11 30	5 58	6 25	11 09	6 52	2 3	3	3
15 Tue.	5 44	6 7	11 22	5 42	6 9	11 36	5 39	6 17	11 29	5 59	6 24	11 08	6 53	2 3	3	3
16 Wed.	5 44	6 6	12 20	5 42	6 8	11 35	5 40	6 16	11 28	6 0	6 23	11 07	6 54	2 3	3	3
17 Thu.	5 45	6 5	1 15	5 43	6 6	1 31	5 41	6 15	1 49	6 10	6 22	1 30	6 55	2 3	3	3
18 Fri.	5 45	6 4	2 7	5 44	6 5	2 22	5 42	6 14	2 38	6 10	6 21	2 37	6 56	2 3	3	3
19 Sat.	5 46	6 3	3 37	5 44	6 4	3 6	5 43	6 13	3 56	6 10	6 20	3 55	6 57	2 3	3	3
20 Sun.	5 46	6 2	4 36	5 45	6 3	4 22	5 44	6 12	4 28	6 10	6 19	4 27	6 58	2 3	3	3
21 Mon.	5 47	6 1	5 41	5 46	6 2	5 27	5 45	6 11	5 34	6 10	6 18	5 33	6 59	2 3	3	3
22 Tue.	5 47	5 59	4 53	5 47	5 58	4 56	5 46	6 0	4 58	6 10	6 17	5 34	7 00	2 3	3	3
23 Wed.	5 48	5 57	5 29	5 47	5 56	5 28	5 47	5 59	5 27	6 10	6 16	5 35	7 01	2 3	3	3
24 Thu.	5 48	5 56	6 6	5 48	5 55	6 14	5 48	5 57	6 13	6 10	6 15	5 36	7 02	2 3	3	3
25 Fri.	5 49	5 55	6 46	5 49	5 54	6 37	5 49	5 56	6 28	6 10	6 14	5 37	7 03	2 3	3	3
26 Sat.	5 50	5 54	7 29	5 50	5 53	7 17	5 50	5 53	7 5	6 10	6 13	5 38	7 04	2 3	3	3
27 Sun.	5 50	5 53	8 35	5 50	5 52	8 4	5 51	5 52	8 10	6 10	6 12	5 39	7 05	2 3	3	3
28 Mon.	5 51	5 52	9 45	5 50	5 51	8 4	5 52	5 53	8 19	6 10	6 11	5 40	7 06	2 3	3	3
29 Tue.	5 51	5 51	10 54	5 51	5 50	9 56	5 52	5 50	9 38	6 10	6 10	5 41	7 07	2 3	3	3
30 Wed.	5 52	5 50	11 7	5 52	5 49	10 53	5 53	5 48	10 36	6 10	6 10	5 42	7 08	2 3	3	3
31 Thu.	5 52	5 49	11 7	5 52	5 48	11 55	5 54	5 47	11 40	6 10	6 10	5 43	7 09	2 3	3	3
1 May	5 53	5 47	1 37	5 53	5 46	1 50	5 55	5 45	1 40	6 10	6 10	5 44	7 10	2 3	3	3
2 Sat.	5 53	5 46	2 44	5 54	5 45	2 4	5 56	5 44	2 30	6 10	6 10	5 45	7 11	2 3	3	3
3 Sun.	5 54	5 45	3 41	5 55	5 44	3 31	5 57	5 43	3 15	6 10	6 10	5 46	7 12	2 3	3	3
4 Mon.	5 54	5 44	4 38	5 56	5 43	4 22	5 58	5 42	4 0	6 10	6 10	5 47	7 13	2 3	3	3
5 Tue.	5 55	5 43	5 35	5 57	5 42	5 13	5 59	5 41	3 52	6 10	6 10	5 48	7 14	2 3	3	3
6 Wed.	5 55	5 42	6 32	5 58	5 41	6 10	6 00	5 40	3 40	6 10	6 10	5 49	7 15	2 3	3	3
7 Thu.	5 56	5 41	7 29	5 59	5 40	7 07	6 00	5 39	3 28	6 10	6 10	5 50	7 16	2 3	3	3
8 Fri.	5 56	5 40	8 26	6 00	5 39	8 04	6 00	5 38	3 17	6 10	6 10	5 51	7 17	2 3	3	3
9 Sat.	5 57	5 39	9 23	6 01	5 38	9 01	6 01	5 37	3 06	6 10	6 10	5 52	7 18	2 3	3	3
10 Sun.	5 57	5 38	10 20	6 02	5 37	10 00	6 02	5 36	2 55	6 10	6 10	5 53	7 19	2 3	3	3
11 Mon.	5 58	5 37	11 17	6 03	5 36	10 59	6 03	5 35	2 44	6 10	6 10	5 54	7 20	2 3	3	3
12 Tue.	5 58	5 36	12 14	6 04	5 35	11 56	6 04	5 34	2 33	6 10	6 10	5 55	7 21	2 3	3	3
13 Wed.	5 59	5 35	1 11	6 05	5 34	1 53	6 05	5 33	2 22	6 10	6 10	5 56	7 22	2 3	3	3
14 Thu.	5 59	5 34	2 8	6 06	5 33	2 50	6 06	5 32	2 11	6 10	6 10	5 57	7 23	2 3	3	3
15 Fri.	6 00	5 33	3 7	6 07	5 32	3 47	6 07	5 31	2 0	6 10	6 10	5 58	7 24	2 3	3	3
16 Sat.	6 00	5 32	4 4	6 08	5 31	4 44	6 08	5 30	1 50	6 10	6 10	5 59	7 25	2 3	3	3
17 Sun.	6 01	5 31	5 41	6 09	5 30	5 41	6 09	5 29	1 39	6 10	6 10	6 00	7 26	2 3	3	3
18 Mon.	6 01	5 30	6 38	6 10	5 29	6 38	6 10	5 28	1 28	6 10	6 10	6 01	7 27	2 3	3	3
19 Tue.	6 02	5 29	7 35	6 11	5 28	7 35	6 11	5 27	1 17	6 10	6 10	6 02	7 28	2 3	3	3
20 Wed.	6 02	5 28	8 32	6 12	5 27	8 32	6 12	5 26	1 06	6 10	6 10	6 03	7 29	2 3	3	3
21 Thu.	6 03	5 27	9 29	6 13	5 26	9 29	6 13	5 25	9 15	6 10	6 10	6 04	7 30	2 3	3	3
22 Fri.	6 03	5 26	10 26	6 14	5 25	10 26	6 14	5 24	9 04	6 10	6 10	6 05	7 31	2 3	3	3
23 Sat.	6 04	5 25	11 23	6 15	5 24	11 23	6 15	5 23	8 53	6 10	6 10	6 06	7 32	2 3	3	3
24 Sun.	6 04	5 24	12 20	6 16	5 23	12 20	6 16	5 22	8 42	6 10	6 10	6 07	7 33	2 3	3	3
25 Mon.	6 05	5 23	1 17	6 17	5 22	1 17	6 17	5 21	8 31	6 10	6 10	6 08	7 34	2 3	3	3
26 Tue.	6 05	5 22	2 14	6 18	5 21	2 14	6 18	5 20	8 20	6 10	6 10	6 09	7 35	2 3	3	3
27 Wed.	6 06	5 21	3 11	6 19	5 20	3 11	6 19	5 19	8 09	6 10	6 10	6 10	7 36	2 3	3	3
28 Thu.	6 06	5 20	4 8	6 20	5 19	4 8	6 20	5 18	7 58	6 10	6 10	6 11	7 37	2 3	3	3
29 Fri.	6 07	5 19	5 5	6 21	5 18	5 5	6 21	5 17	7 47	6 10	6 10	6 12	7 38	2 3	3	3
30 Sat.	6 07	5 18	6 2	6 22	5 17	6 2	6 22	5 16	7 36	6 10	6 10	6 13	7 39	2 3	3	3
1 July	6 08	5 17	7 0	6 23	5 16	7 0	6 23	5 15	7 25	6 10	6 10	6 14	7 40	2 3	3	3
2 Aug.	6 08	5 16	7 57	6 24	5 15	7 57	6 24	5 14	7 14	6 10	6 10	6 15	7 41	2 3	3	3
3 Sep.	6 09	5 15	8 54	6 25	5 14	8 54	6 25	5 13	7 3	6 10	6 10	6 16	7 42	2 3	3	3
4 Oct.	6 09	5 14	9 51	6 26	5 13	9 51	6 26	5 12	6 52	6 10	6 10	6 17	7 43	2 3	3	3
5 Nov.	6 10	5 13	10 48	6 27	5 12	10 48	6 27	5 11	7 41	6 10	6 10	6 18	7 44	2 3	3	3
6 Dec.	6 10	5 12	11 45	6 28	5 11	11 45	6 28	5 10	8 38	6 10	6 10	6 19	7 45	2 3	3	3
7 Jan.	6 11	5 11	12 42	6 29	5 10	12 42	6 29	5 9	9 35	6 10	6 10	6 20	7 46	2 3	3	3
8 Feb.	6 11	5 10	1 39	6 30	5 9	1 39	6 30	5 8	10 32	6 10	6 10	6 21	7 47	2 3	3	3
9 Mar.	6 12	5 9	2 36	6 31	5 8	2 36	6 31	5 7	11 29	6 10	6 10	6 22	7 48	2 3	3	3
10 Apr.	6 12	5 8	3 33	6 32	5 7	3 33	6 32	5 6	12 26	6 10	6 10	6 23	7 49	2 3	3	3
11 May	6 13	5 7	4 30	6 33	5 6	4 30	6 33	5 5	1 23	6 10	6 10	6 24	7 50	2 3	3	3
12 Jun.	6 13	5 6	5 27	6 34	5 5	5 27	6 34	5 4	2 20	6 10	6 10	6 25	7 51	2 3	3	3
13 Jul.	6 14	5 5	6 24	6 35	5 4	6 24	6 35	5 3	3 17	6 10	6 10	6 26	7 52	2 3	3	3
14 Aug.	6 14	5 4	7 21	6 36	5 3	7 21	6 36	5 2	4 14	6 10	6 10	6 27	7 53	2 3	3	3
15 Sep.	6 15	5 3	8 18	6 37	5 2	8 18	6 37	5 1	5 11	6 10	6 10	6 28	7 54	2 3	3	3
16 Oct.	6 15	5 2	9 15	6 38	5 1	9 15	6 38	5 0	6 8	6 10	6 10	6 29	7 55	2 3	3	3
17 Nov.	6 16	5 1	10 12	6 39	5 0	10 12	6 39	4 59	7 5	6 10	6 10	6 30	7 56	2 3	3	3
18 Dec.	6 16	5 0	11 9	6 40	4 59	11 9	6 40	4 58	8 2	6 10	6 10	6 31	7 57	2 3	3	3
19 Jan.	6 17	4 59	12 6	6 41	4 58	12 6	6 41	4 57	9 19	6 10	6 10	6 32	7 58	2 3	3	3
20 Feb.	6 17	4 58	1 3	6 42	4 57	1 3	6 42	4 56	10 16	6 10	6 10	6 33	7 59	2 3	3	3
21 Mar.	6 18	4 57	2 0	6 43	4											

OCTOBER

1953

OCTOBER 1953															Moon's phases		E.S.T.		C.S.T.		M.S.T.		P.S.T.																																																																																																																																																																																																																																																																																																																																																																																																															
Oct.	Sun fast	a-factor, moonrise		LOCAL CIVIL TIME Latitude 30° n.			LOCAL CIVIL TIME Latitude 35° n.			LOCAL CIVIL TIME Latitude 40° n.			LOCAL CIVIL TIME Latitude 45° n.			Moon's upper transit	Moon's rise	Moon's set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon

Moon's
phases

E.S.T.
d h m
7 7 40
15 4 44
22 7 56
29 8 9

G.S.T.
d h m
7 6 40
15 3 44
22 6 56
29 7 9

M.S.T.
d h m
7 5 40
15 2 44
22 5 56
29 6 9

P.S.T.
d h m
7 4 40
15 1 44
22 4 56
29 5 9

NOVEMBER

1953

Moon's phases
 E.S.T.
 d h m
 6 12 38
 14 2 52
 20 6 12
 28 3 16
 C.S.T.
 d h m
 6 11 58
 14 1 52
 20 5 12
 28 2 16
 M.S.T.
 d h m
 6 10 58
 14 0 52
 20 4 12
 28 1 16
 P.S.T.
 d h m
 6 9 58
 13 11 52
 20 3 12
 28 0 16

Nov.	Sun fast	a- factor, moonrise		LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit		a- factor, moonset	
				Sun- rise		Moon- rise		Sun- rise		Moon- rise		Sun- rise		Moon- rise		Sun- rise		Moon- rise					
		m	s	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	m	m
1 Sun.	16 21	2	5	7	6 14	5 14	1 44	2 22	6 20	5 6	1 41	2 22	6 38	2 24	2 35	2 26	8 6	1	2	3	m	m	
2 Mon.	16 23	2	5	7	6 15	5 13	2 36	2 49	6 21	5 6	2 36	2 47	6 30	2 46	2 44	8 45	1	2	3	m	m		
3 Tue.	16 23	2	5	7	6 15	5 12	3 29	3 16	6 21	5 4	3 32	3 12	6 31	3 8	3 39	9 25	1	2	3	m	m		
4 Wed.	16 23	3	5	8	6 16	5 11	4 22	3 45	6 23	5 4	4 28	3 39	6 32	4 55	4 41	3 22	10 6	1	2	3	m	m	
5 Thu.	16 22	3	5	8	6 17	5 10	5 17	4 17	6 24	5 3	5 25	4 8	6 33	4 54	4 44	3 44	10 49	1	2	4	m	m	
6 Fri.	16 20	3	5	8	6 17	5 10	6 13	4 53	6 25	5 2	6 23	4 41	6 34	4 53	4 42	3 51	11 35	2	3	4	m	m	
7 Sat.	16 17	3	5	8	6 18	5 9	7 10	5 35	6 26	5 1	7 23	5 20	6 35	4 52	4 46	4 46	12 24	2	4	5	m	m	
8 Sun.	16 13	2	5	7	6 19	5 8	8 8	6 22	6 27	5 0	8 23	6 7	6 36	4 51	4 40	5 29	1 16	2	4	6	m	m	
9 Mon.	16 9	2	4	7	6 20	5 8	9 4	7 15	6 28	4 59	9 19	7 0	6 38	4 50	4 39	5 59	6 21	2	5	7	m	m	
10 Tue.	16 4	2	4	6	6 21	5 7	9 57	8 14	6 29	4 58	10 12	7 59	6 39	4 49	4 37	7 23	3 4	3	5	8	m	m	
11 Wed.	15 58	2	3	5	6 22	5 6	10 45	9 15	6 30	4 58	10 59	9 3	6 40	4 48	4 36	11 31	8 31	3	6	9	m	m	
12 Thu.	15 51	1	3	4	6 22	5 6	11 29	10 18	6 31	4 57	11 40	10 9	6 41	4 47	4 35	12 6	9 44	4	6	9	m	m	
13 Fri.	15 43	1	2	4	6 23	5 5	12 8	11 22	6 32	4 56	12 16	11 16	6 42	4 46	4 34	12 36	10 59	5	7	8	m	m	
14 Sat.	15 34	1	2	3	6 24	5 5	12 44	.....	6 33	4 56	12 49	.....	6 43	4 45	4 33	1 2	.....	6	9	9	m	m
15 Sun.	15 25	1	2	3	6 25	5 4	1 19	0 27	6 34	4 56	1 20	0 23	6 44	4 44	4 32	1 26	0 14	7	9	9	m	m	
16 Mon.	15 15	1	2	3	6 26	5 4	1 53	1 32	6 35	4 54	1 52	1 31	6 46	4 44	4 31	1 48	1 30	8	10	9	m	m	
17 Tue.	15 3	1	3	4	6 26	5 3	2 29	2 37	6 36	4 54	2 24	2 41	6 47	4 43	4 30	2 13	2 48	9	10	9	m	m	
18 Wed.	14 52	2	3	4	6 27	5 3	3 7	3 46	6 37	4 53	3 58	3 52	6 48	4 42	4 29	2 39	4 8	9	10	9	m	m	
19 Thu.	14 39	2	3	5	6 28	5 2	3 59	4 56	6 38	4 53	3 39	5 5	6 49	4 41	4 28	3 12	5 29	10	10	9	m	m	
20 Fri.	14 25	2	4	6	6 29	5 2	4 40	6 7	6 39	4 52	4 26	6 19	6 50	4 41	4 27	3 53	6 51	11	10	9	m	m	
21 Sat.	14 11	2	5	7	6 30	5 2	5 36	7 17	6 40	4 52	5 21	7 31	7 31	4 40	4 26	4 43	8 7	11	10	9	m	m
22 Sun.	13 56	3	5	8	6 31	5 2	6 37	8 21	6 41	4 51	6 22	8 36	6 52	4 39	4 26	5 44	9 14	0	12	10	m	m	
23 Mon.	13 40	3	5	8	6 31	5 1	7 40	9 18	6 42	4 51	7 27	9 32	6 54	4 39	4 25	6 52	10 8	1	12	10	m	m	
24 Tue.	13 23	3	5	8	6 32	5 1	8 43	10 6	6 43	4 50	8 31	10 19	6 55	4 38	4 24	8 2	10 50	2	12	10	m	m	
25 Wed.	13 6	3	5	8	6 33	5 1	9 43	10 47	6 44	4 50	9 34	10 57	6 56	4 38	4 23	9 11	11 22	3	12	10	m	m	
26 Thu.	12 47	3	5	8	6 34	5 1	10 40	11 22	6 45	4 50	10 34	11 30	6 57	4 37	4 23	10 19	11 48	4	12	10	m	m	
27 Fri.	12 28	3	5	7	6 35	5 0	11 35	11 53	6 46	4 49	11 32	11 58	6 58	4 37	4 22	11 23	12 10	5	12	10	m	m	
28 Sat.	12 8	2	5	7	6 36	5 0	.....	12 22	6 47	4 49	.....	12 24	6 59	4 37	4 22	11 4	.....	6	12	10	m	m
29 Sun.	11 48	2	5	7	6 36	5 0	0 29	12 50	6 48	4 49	0 28	12 49	7 0	4 36	0 27	12 49	7 15	4	12	10	m	m	
30 Mon.	11 27	2	5	7	6 37	5 0	1 21	1 17	6 48	4 49	1 23	1 13	7 1	4 36	0 27	12 49	7 16	4	12	10	m	m	

DECEMBER 1953

DECEMBER 1953										Moon's phases		E.S.T. d h m ● 6 5 48 D 13 11 30 O 28 0 43 C 28 0 43		C.S.T. d h m ● 6 4 48 D 13 10 30 O 20 5 43 C 27 11 43		M.S.T. d h m ● 6 3 48 D 13 9 30 O 20 4 43 C 27 10 43		P.S.T. d h m ● 6 2 48 D 13 8 30 O 20 3 43 C 27 9 43										
Dec	Sun fast	a- factor, moonrise		LOCAL CIVIL TIME Latitude 30° n.			LOCAL CIVIL TIME Latitude 35° n.			LOCAL CIVIL TIME Latitude 40° n.			LOCAL CIVIL TIME Latitude 45° n.			Moon's upper transit	Moon's rise set	Moon- rise set	Sun- rise set	Sun- rise set	Moon- rise set	Moon's upper transit	a- factor, moonset	90°	105°	120°		
		m	m	h	m	h	m	h	m	h	m	h	m	h	m												h	m
1 Tue.	11 5	2	5	6 38	5 0	2 14	6 42	5 0	2 14	6 49	4 48	2 19	6 54	4 48	2 19	7 17	4 20	2 30	1 26	8 3	1	2	3	1	2	3	m	m
2 Wed.	10 42	3	5	6 39	5 0	3 8	6 43	4 48	3 15	6 50	4 48	3 15	6 54	4 48	3 15	7 19	4 20	2 30	1 48	8 45	1	2	3	1	2	3	m	m
3 Thu.	10 19	3	5	6 40	5 0	4 1	6 44	4 48	4 13	6 51	4 48	4 13	6 58	4 48	4 13	7 20	4 20	2 31	1 48	8 45	1	2	3	1	2	3	m	m
4 Fri.	9 55	3	5	6 41	5 0	5 1	6 45	4 48	5 1	6 52	4 48	5 1	6 59	4 48	5 1	7 21	4 19	2 31	1 48	8 45	1	2	3	1	2	3	m	m
5 Sat.	9 30	3	5	6 41	5 0	5 59	6 45	4 48	6 13	6 53	4 48	6 13	6 59	4 48	6 13	7 22	4 19	2 31	1 48	8 45	1	2	3	1	2	3	m	m
6 Sun.	9 5	2	5	6 42	5 0	6 57	6 45	4 48	7 12	6 54	4 48	7 12	6 59	4 48	7 12	7 23	4 19	2 31	1 48	8 45	1	2	3	1	2	3	m	m
7 Mon.	8 40	2	4	6 43	5 0	7 52	6 46	4 48	8 7	6 54	4 48	8 7	6 59	4 48	8 7	7 24	4 19	2 31	1 48	8 45	1	2	3	1	2	3	m	m
8 Tue.	8 14	2	4	6 43	5 0	8 43	6 46	4 48	8 57	6 56	4 48	8 57	6 59	4 48	8 57	7 25	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
9 Wed.	7 47	2	3	6 44	5 0	9 29	6 48	4 48	9 40	6 56	4 48	9 40	6 57	4 48	9 40	7 26	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
10 Thu.	7 20	1	3	6 45	5 1	10 9	6 49	4 49	10 17	6 57	4 49	10 17	6 59	4 49	10 17	7 10	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
11 Fri.	6 53	1	2	6 46	5 1	11 45	6 49	4 49	11 51	6 58	4 49	11 51	6 59	4 49	11 51	7 11	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
12 Sat.	6 25	1	2	6 46	5 1	12 20	6 49	4 49	12 22	6 58	4 49	12 22	6 59	4 49	12 22	7 12	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
13 Sun.	5 57	1	2	6 47	5 1	11 53	6 49	4 49	11 53	6 58	4 49	11 53	6 59	4 49	11 53	7 13	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
14 Mon.	5 29	1	2	6 48	5 2	12 27	6 48	5 2	12 27	6 57	4 49	12 27	6 58	4 49	12 27	7 14	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
15 Tue.	5 0	1	3	6 48	5 2	13 1	6 48	5 2	13 1	6 57	4 49	13 1	6 58	4 49	13 1	7 15	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
16 Wed.	4 31	2	3	6 49	5 2	14 2	6 49	5 2	14 2	6 58	4 49	14 2	6 59	4 49	14 2	7 16	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
17 Thu.	4 2	2	4	6 50	5 3	22 31	6 50	5 3	22 31	6 59	4 49	22 31	6 59	4 49	22 31	7 16	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
18 Fri.	3 33	2	4	6 50	5 3	23 4	6 50	5 3	23 4	6 59	4 49	23 4	6 59	4 49	23 4	7 17	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
19 Sat.	3 3	3	5	6 51	5 4	18 6	6 51	5 4	18 6	6 59	4 49	18 6	6 59	4 49	18 6	7 17	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
20 Sun.	2 33	3	6	6 51	5 4	19 20	6 51	5 4	19 20	6 59	4 49	19 20	6 59	4 49	19 20	7 18	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
21 Mon.	2 4	3	6	6 52	5 4	20 4	6 52	5 4	20 4	6 59	4 49	20 4	6 59	4 49	20 4	7 18	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
22 Tue.	1 34	3	5	6 52	5 4	21 27	6 52	5 4	21 27	6 59	4 49	21 27	6 59	4 49	21 27	7 19	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
23 Wed.	1 4	3	5	6 53	5 5	22 9	6 53	5 5	22 9	6 59	4 49	22 9	6 59	4 49	22 9	7 20	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
24 Thu.	0 34	3	5	6 53	5 6	23 19	6 53	5 6	23 19	6 59	4 49	23 19	6 59	4 49	23 19	7 20	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
25 Fri.	SLOW	2	5	6 54	5 6	24 10	6 54	5 6	24 10	6 59	4 49	24 10	6 59	4 49	24 10	7 21	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
26 Sat.	0 25	2	5	6 54	5 7	11 12	6 54	5 7	11 12	6 59	4 49	11 12	6 59	4 49	11 12	7 21	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
27 Sun.	0 55	2	5	6 54	5 8	12 1	6 54	5 8	12 1	6 59	4 49	12 1	6 59	4 49	12 1	7 21	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
28 Mon.	1 24	2	5	6 55	5 8	0 11	6 55	5 8	0 11	6 59	4 49	0 11	6 59	4 49	0 11	7 21	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
29 Tue.	1 54	3	5	6 55	5 9	0 58	6 55	5 9	0 58	6 59	4 49	0 58	6 59	4 49	0 58	7 21	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
30 Wed.	2 23	3	5	6 55	5 10	1 53	6 55	5 10	1 53	6 59	4 49	1 53	6 59	4 49	1 53	7 22	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m
31 Thu.	2 52	3	5	6 56	5 10	2 49	6 56	5 10	2 49	6 59	4 49	2 49	6 59	4 49	2 49	7 22	4 18	2 31	1 48	8 45	1	2	3	1	2	3	m	m

Symbols

☉ the sun	♃ Jupiter	☾ occultation
☾ the moon	♄ Saturn	♌ opposition
☿ Mercury	♅ Uranus	☾ new moon
♀ Venus	♆ Neptune	☾ first quarter
♁ the earth	♇ Pluto	☾ full moon
♂ Mars	♂ conjunction	☾ last quarter

Signs of the Zodiac

and average date of sun entering

1. ♈ Aries, the Ram, Mar. 21	7. ♎ Libra, the Balance, Sept. 23
2. ♉ Taurus, the Bull, Apr. 20	8. ♏ Scorpius, the Scorpion, Oct. 23
3. ♊ Gemini, the Twins, May 21	9. ♐ Sagittarius, the Archer, Nov. 22
4. ♋ Cancer, the Crab, June 21	10. ♑ Capricornus, the Goat, Dec. 22
5. ♌ Leo, the Lion, July 23	11. ♒ Aquarius, the Water-bearer, Jan. 20
6. ♍ Virgo, the Virgin, Aug. 23	12. ♏ Pisces, the Fishes, Feb. 19

Phenomena, 1953 (Eastern Standard Time)

January

d	h	m	
2	1	— a.m.	The earth at perihelion
4	9	45 p.m.	♂'s brightest moons all on w. side
6	1	54 a.m.	☾ on celestial equator
11	—	—	☾, max. libration in long., e. limb exposed
16	—	—	♂ on meridian at 6 a.m., L.C.T.
17	2	— a.m.	Titan, e. elongation from ♂
17	9	— p.m.	♂ ♀ ♂, ♀ 0°12' n.
31	10	— a.m.	♀, greatest elongation e., 46°54' from ☉

February

2	6	— p.m.	Superior ♂ ♀ ☉
9	6	54 a.m.	♂ on celestial equator
9	10	— p.m.	Titan, w. elongation from ♂
14	9	30 p.m.	♂'s brightest moons all on e. side
16	—	—	♂ on meridian at 4 a.m., L.C.T.
21	—	—	☾, max. libration in long., w. limb exposed
23	10	13 p.m.	♂ ♀ ☾, ♂ 2°2' s.
24	9	30 p.m.	♂'s brightest moons all on w. side

March

2	3	— a.m.	♀, greatest elongation e., 18°10' from ☉
7	7	— p.m.	♀ at greatest brilliancy
17	2	58 p.m.	♂ ♀ ☾, ♂ 5°25' s.
17	3	6 p.m.	♂ ♀ ☾, ♀ 1°34' n.
17	6	— p.m.	♂ ♀ ♂, ♀ 7°0' n.
18	—	—	♂ on meridian at 2 a.m., L.C.T.
18	8	— a.m.	Inferior ♂ ♀ ☉
31	8	22 p.m.	♂ ♀ ☾, ♂ 8°16' n.

April

6	5	— p.m.	Titan, e. elongation from ♂
6	—	—	☾, max. libration in long., e. limb exposed
13	3	— a.m.	Inferior ♂ ♀ ☉
15	—	—	♂ on meridian at 0h L.C.T.
15	5	— a.m.	♀, greatest elongation w., 27°36' from ☉
15	8	37 p.m.	♂ ♀ ☾, ♂ 5°42' s.
27	11	— a.m.	♂ ♀ ♂, ♂ 1°9' n.
29	8	45 p.m.	♂'s brightest moons all on w. side

May

13	—	—	♂ on meridian at 10 p.m., L.C.T.
19	1	— a.m.	♀ at greatest brilliancy
24	5	48 a.m.	♂ ♀ Spica, ♀ 5°7' n.
24	8	— a.m.	Superior ♂ ♀ ☉
25	3	32 a.m.	♂ ♀ ☾, ♂ 8°16' n.
26	—	—	☾, max. libration in lat., n. limb exposed
28	—	—	♂ ♀ Scorpi, 2:38-3:30 C.S.T. for Tex.
31	6	— a.m.	♂ ♀ ♀, ♀ 1°2' n.

June

5	1	21 a.m.	☾ on celestial equator
8	3	22 a.m.	♂ ♀ ☾, ♀ 8°4' s.
11	—	—	♂ on meridian at 8 p.m., L.C.T.
22	5	— a.m.	♀, greatest elongation w., 45°46' from ☉
22	—	—	☾, max. libration in lat., n. limb exposed
25	6	— a.m.	Titan, e. elongation from ♂
25	10	11 p.m.	☾ at max. declination, —26°39'25''
27	12	— noon	♀, greatest elongation e., 25°31' from ☉

July

5	1	— p.m.	The earth at aphelion
7	—	—	♂ ♀ Tauri, 2:07-3:00 a.m., E.S.T., New Eng.
7	7	44 a.m.	♂ ♀ ☾, ♀ 7°45' s.
8	6	15 a.m.	♂ ♀ ☾, ♂ 4°36' s.
10	7	— p.m.	♂ ♀ ♀, ♂ 0°53' n.
18	7	43 p.m.	♂ ♀ ☾, ♂ 8°17' n.
22	5	— p.m.	♂ ♀ ☾, ♀ 1°55' s.
25	4	— a.m.	Inferior ♂ ♀ ☉

August

4	9	40 p.m.	♂ ♀ ☾, ♂ 4°16' s.
5	0	36 a.m.	☾, max. declination, +26°41'32''
5	9	10 p.m.	♂ ♀ ☾, ♀ 4°33' s.
7	7	26 a.m.	♂ ♀ ☾, ♂ 0°47' s.
10	3	30 a.m.	♂'s brightest moons all on w. side
13	4	— a.m.	♀, greatest elongation w., 18°49' from ☉
16	—	—	☾, max. libration in lat., n. limb exposed
25	10	31 p.m.	☾ on celestial equator

September

4	10	23 p.m.	♂ ♀ ☾, ♀ 0°19' n.
6	11	51 a.m.	♂ ♀ ☾, ♂ 3°25' n.
7	4	— a.m.	Superior ♂ ♀ ☉
11	5	25 p.m.	♂ ♀ ☾, ♂ 7°56' n.
16	—	—	♂ on meridian at 6 a.m., L.C.T.
25	—	—	☾, max. libration in lat., s. limb exposed
28	9	56 p.m.	♂ ♀ ☾, ♂ 3°30' s.
30	11	42 p.m.	♂ ♀ ☾, ♂ 0°17' s.

October

4	1	— a.m.	♂ ♀ ♀, ♀ 0°2' s.
5	8	13 a.m.	♂ ♀ ☾, ♂ 5°9' n.
5	10	4 a.m.	♂ ♀ ☾, ♀ 5°14' n.
18	—	—	♂ on meridian at 4 a.m., L.C.T.
19	7	52 p.m.	☾ on celestial equator
23	11	— a.m.	♀, greatest elongation e., 24°18' from ☉
26	6	56 a.m.	♂ ♀ ☾, ♂ 3°14' s.
28	7	47 a.m.	♂ ♀ ☾, ♂ 0°2' n.

November

2	1	58 a.m.	☾ on celestial equator
3	4	14 a.m.	♂ ♀ ☾, ♂ 6°22' n.
6	1	36 a.m.	♂ on celestial equator
14	—	—	Transit of Mercury (see Eclipses...)
14	12	— noon	Inferior ♂ ♀ ☉
15	—	—	♂ on meridian at 2 a.m., L.C.T.
24	4	23 p.m.	♂ ♀ ☾, ♂ 0°16' n.
27	1	45 a.m.	♂'s brightest moons all on e. side

December

1	1	— p.m.	♀, greatest elongation w., 20°21' from ☉
1	11	29 p.m.	♂ ♀ ☾, ♂ 6°52' n.
3	7	15 a.m.	♂ ♀ ☾, ♂ 7°44' n.
6	9	24 p.m.	♂ ♀ Spica, ♂ 3°31' n.
12	—	—	♂ on meridian at 0h L.C.T.
13	3	— a.m.	♂ ♀ ♀, ♂ 0°29' s.
16	—	—	☾, max. libration in lat., s. limb exposed
19	5	44 p.m.	♂ ♀ ☾, ♂ 3°23' s.

Longitude and Latitude of Foreign Cities—by Continents— and Time of Day Corresponding to 12:00 Noon, E.S.T.

City	Time	Long.	Lat.	City	Time	Long.	Lat.
		° ' "	° ' "			° ' "	° ' "
Nome, Alaska.....	6:00 a.m.	165 30 w	64 25 n	Munich, Germany.....	6:00 p.m.	11 35 e	48 8 n
Sitka, Alaska.....	9:00 a.m.	135 15 w	57 10 n	Zürich, Switzerland.....	6:00 p.m.	8 31 e	47 21 n
Honolulu, Hawaii.....	7:00 a.m.	157 50 w	21 18 n	Milan, Italy.....	6:00 p.m.	9 10 e	45 27 n
Chihuahua, Mexico.....	11:00 a.m.	106 5 w	28 37 n	Venice, Italy.....	6:00 p.m.	12 20 e	45 26 n
Mexico City, Mexico.....	11:00 a.m.	99 7 w	19 26 n	Rome, Italy.....	6:00 p.m.	12 27 e	41 54 n
Veracruz, Mexico.....	11:00 a.m.	96 10 w	19 10 n	Naples, Italy.....	6:00 p.m.	14 15 e	40 50 n
Panamá City, Panamá.....	12:00 noon	79 32 w	8 58 n	Warsaw, Poland.....	6:00 p.m.	21 0 e	52 14 n
Havana, Cuba.....	12:00 noon	82 23 w	23 8 n	Prague, Czechoslovakia.....	6:00 p.m.	14 26 e	50 5 n
Kingston, Jamaica.....	12:00 noon	76 49 w	17 59 n	Vienna, Austria.....	6:00 p.m.	16 20 e	48 14 n
San Juan, Puerto Rico.....	1:00 p.m.	66 10 w	18 30 n	Budapest, Hungary.....	6:00 p.m.	19 5 e	47 30 n
Bogotá, Colombia.....	12:00 noon	74 15 w	4 32 n	Belgrade, Yugoslavia.....	6:00 p.m.	20 32 e	44 52 n
Caracas, Venezuela.....	12:30 p.m.	67 2 w	10 28 n	Bucharest, Rumania.....	7:00 p.m.	26 7 e	44 25 n
Georgetown, British Guiana.....	1:30 p.m.	58 15 w	6 45 n	Sofia, Bulgaria.....	7:00 p.m.	23 20 e	42 40 n
Paramaribo, Surinam.....	1:30 p.m.	55 15 w	5 45 n	Athens, Greece.....	7:00 p.m.	23 43 e	37 58 n
Cayenne, French Guiana.....	1:30 p.m.	52 18 w	4 49 n	Leningrad, U.S.S.R.....	7:00 p.m.	30 12 e	59 56 n
Guayaquil, Ecuador.....	12:00 noon	79 56 w	2 10 s	Moscow, U.S.S.R.....	7:00 p.m.	37 36 e	55 45 n
Lima, Peru.....	12:00 noon	77 2 w	12 0 s	Saratov, U.S.S.R.....	8:00 p.m.	46 0 e	51 31 n
Belém, Brazil.....	2:00 p.m.	48 29 w	1 28 s	Odessa, U.S.S.R.....	7:00 p.m.	30 48 e	46 27 n
São Salvador, Brazil.....	2:00 p.m.	38 27 w	12 56 s	Algiers, Algeria.....	5:00 p.m.	3 0 e	36 50 n
Rio de Janeiro, Brazil.....	2:00 p.m.	43 12 w	22 57 s	Tripoli, Libya.....	6:00 p.m.	13 12 e	32 57 n
São Paulo, Brazil.....	2:00 p.m.	46 31 w	23 31 s	Cairo, Egypt.....	7:00 p.m.	31 21 e	30 2 n
La Paz, Bolivia.....	1:00 p.m.	68 22 w	16 27 s	Dakar, French West Africa.....	4:00 p.m.	17 28 w	14 40 n
Asunción, Paraguay.....	1:00 p.m.	57 40 w	25 15 s	Léopoldville, Belgian Congo.....	6:00 p.m.	15 17 e	4 18 s
Montevideo, Uruguay.....	1:30 p.m.	56 10 w	34 53 s	Addis Ababa, Ethiopia.....	8:00 p.m.	38 49 e	9 2 n
Iquique, Chile.....	1:00 p.m.	70 7 w	20 10 s	Nairobi, Kenya.....	8:00 p.m.	36 55 e	1 25 n
Santiago, Chile.....	1:00 p.m.	70 45 w	33 28 s	Johannesburg, U. of S. Af.....	7:00 p.m.	28 4 e	26 12 s
Córdoba, Argentina.....	1:00 p.m.	64 10 w	31 28 s	Durban, U. of S. Af.....	7:00 p.m.	30 53 e	29 53 s
Buenos Aires, Argentina.....	1:00 p.m.	58 22 w	34 35 s	Capetown, U. of S. Af.....	7:00 p.m.	18 22 e	33 55 s
Reykjavik, Iceland.....	4:00 p.m.	21 58 w	64 4 n	Tananarive, Madagascar.....	8:00 p.m.	47 33 e	18 50 s
Belfast, Northern Ireland.....	5:00 p.m.	5 56 w	54 37 n	Irkutsk, U.S.S.R.....	0:00 a.m.*	104 20 e	52 30 n
Dublin, Ireland.....	5:00 p.m.	6 15 w	53 20 n	Vladivostok, U.S.S.R.....	2:00 a.m.*	132 0 e	43 10 n
Aberdeen, Scotland.....	5:00 p.m.	2 9 w	57 9 n	Peiping, China.....	1:00 a.m.*	116 25 e	39 55 n
Edinburgh, Scotland.....	5:00 p.m.	3 10 w	55 55 n	Nanking, China.....	1:00 a.m.*	118 53 e	32 3 n
Glasgow, Scotland.....	5:00 p.m.	4 15 w	55 50 n	Shanghai, China.....	1:00 a.m.*	121 28 e	31 10 n
Newcastle-on-Tyne, Eng.....	5:00 p.m.	1 37 w	54 58 n	Chungking, China.....	0:00 a.m.*	106 34 e	29 46 n
Leeds, England.....	5:00 p.m.	1 30 w	53 45 n	Canton, China.....	1:00 a.m.*	113 15 e	23 7 n
Manchester, England.....	5:00 p.m.	2 15 w	53 30 n	Manila, Philippines.....	1:00 a.m.*	120 57 e	14 35 n
Liverpool, England.....	5:00 p.m.	3 0 w	53 25 n	Bangkok, Thailand.....	0:00 a.m.*	100 30 e	13 45 n
Birmingham, England.....	5:00 p.m.	1 55 w	52 25 n	Singapore, British Malaya.....	0:30 a.m.*	103 55 e	1 14 n
London, England.....	5:00 p.m.	0 5 w	51 32 n	Rangoon, Burma.....	11:30 p.m.	96 0 e	16 50 n
Bristol, England.....	5:00 p.m.	2 35 w	51 28 n	Calcutta, India.....	10:30 p.m.	88 24 e	22 34 n
Plymouth, England.....	5:00 p.m.	4 5 w	50 25 n	Bombay, India.....	10:30 p.m.	72 48 e	19 0 n
Hammerfest, Norway.....	6:00 p.m.	23 38 e	70 38 n	Mecca, Saudi Arabia.....	8:00 p.m.	39 45 e	21 29 n
Oslo, Norway.....	6:00 p.m.	10 42 e	59 57 n	Ankara, Turkey.....	7:00 p.m.	32 55 e	39 55 n
Stockholm, Sweden.....	6:00 p.m.	18 3 e	59 17 n	Tokyo, Japan.....	2:00 a.m.*	139 45 e	35 40 n
Helsinki, Finland.....	7:00 p.m.	25 0 e	60 10 n	Nagoya, Japan.....	2:00 a.m.*	136 56 e	35 7 n
Copenhagen, Denmark.....	6:00 p.m.	12 34 e	55 40 n	Osaka, Japan.....	2:00 a.m.*	135 30 e	34 32 n
Lisbon, Portugal.....	5:00 p.m.	9 9 w	38 44 n	Nagasaki, Japan.....	2:00 a.m.*	129 57 e	32 48 n
Madrid, Spain.....	5:00 p.m.	3 42 w	40 26 n	Darwin, Australia.....	2:30 a.m.*	130 51 e	12 28 s
Barcelona, Spain.....	5:00 p.m.	2 9 e	41 23 n	Brisbane, Australia.....	3:00 a.m.*	153 8 e	27 29 s
Marseille, France.....	5:00 p.m.	5 20 e	43 20 n	Sydney, Australia.....	3:00 a.m.*	151 0 e	34 0 s
Bordeaux, France.....	5:00 p.m.	0 31 w	44 50 n	Melbourne, Australia.....	3:00 a.m.*	144 58 e	37 47 s
Lyon, France.....	5:00 p.m.	4 50 e	45 45 n	Adelaide, Australia.....	2:30 a.m.*	138 36 e	34 55 s
Paris, France.....	5:00 p.m.	2 20 e	48 48 n	Perth, Australia.....	1:00 a.m.*	115 52 e	31 57 s
Brussels, Belgium.....	5:00 p.m.	4 22 e	50 52 n	Hobart, Tasmania.....	3:00 a.m.*	147 19 e	42 52 s
Amsterdam, Netherlands.....	5:00 p.m.	4 53 e	52 22 n	Auckland, New Zealand.....	5:00 a.m.*	174 45 e	36 52 s
Bremen, Germany.....	6:00 p.m.	8 49 e	53 5 n	Wellington, New Zealand.....	5:00 a.m.*	174 47 e	41 17 s
Hamburg, Germany.....	6:00 p.m.	10 2 e	53 33 n	Jakarta, Java.....	1:00 a.m.*	106 48 e	6 16 s
Berlin, Germany.....	6:00 p.m.	13 25 e	52 30 n	Makassar, Celebes.....	1:00 a.m.*	119 30 e	5 9 s
Frankfurt, Germany.....	6:00 p.m.	8 41 e	50 7 n	Port Moresby, Papua Ter.....	3:00 a.m.*	147 8 e	9 25 s

* On the following day.

Longitude, Latitude and Magnetic Declination of U. S. and Canadian Cities

The last column shows, in degrees, the magnetic declination, which is the angle that the magnetic meridian makes with the true, or geographic, meridian. When the value in degrees is marked *w*, the north end of the compass needle points west of true north by that number of degrees; when the value is *e*, the north end of the needle points east of true north by that many degrees.

City	Long.	Lat.	Dec.	City	Long.	Lat.	Dec.
° ' "	° ' "	° ' "	°	° ' "	° ' "	° ' "	°
Eastport, Maine.....	67 0	44 54	21 w	Pierre, S. Dak.....	97 33	44 22	12 e
Bangor, Maine.....	68 47	44 48	19 w	Sioux Falls, S. Dak.....	96 44	43 33	11 e
Portland, Maine.....	70 15	43 40	17 w	Lincoln, Nebr.....	96 40	40 50	10 e
Manchester, N. H.....	71 30	43 0	16 w	North Platte, Nebr.....	100 46	41 8	12 e
Montpelier, Vt.....	72 32	44 15	16 w	Wichita, Kans.....	97 17	37 43	10 e
Boston, Mass.....	71 5	42 21	15 w	Garden City, Kans.....	100 53	37 58	13 e
Springfield, Mass.....	72 34	42 6	14 w	Oklahoma City, Okla.....	97 28	35 26	10 e
Providence, R. I.....	71 24	41 50	15 w	Amarillo, Tex.....	101 50	35 11	12 e
New Haven, Conn.....	72 55	41 19	12 w	Dallas, Tex.....	96 46	32 46	9 e
New York, N. Y.....	73 57½	40 48½	12 w	Sweetwater, Tex.....	100 24	32 28	11 e
Albany, N. Y.....	73 45	42 40	13 w	San Antonio, Tex.....	98 33	29 23	10 e
Watertown, N. Y.....	75 55	43 58	13 w	El Paso, Tex.....	105 29	31 46	13 e
Syracuse, N. Y.....	76 8	43 2	11 w	Havre, Mont.....	109 43	48 33	20 e
Buffalo, N. Y.....	78 50	42 55	7 w	Helena, Mont.....	112 2	46 35	19 e
Scranton, Pa.....	75 39	41 24	10 w	Lander, Wyo.....	108 40	42 50	17 e
Philadelphia, Pa.....	75 10	39 57	10 w	Cheyenne, Wyo.....	104 52	41 9	15 e
Pittsburgh, Pa.....	79 57	40 27	5 w	Denver, Colo.....	105 0	39 45	14 e
Atlantic City, N. J.....	74 25	39 22	10 w	Grand Junction, Colo.....	108 33	39 5	15 e
Baltimore, Md.....	76 38	39 18	8 w	Trinidad, Colo.....	104 30	37 10	14 e
Richmond, Va.....	77 29	37 33	6 w	Santa Fe, N. Mex.....	105 57	35 41	13 e
Roanoke, Va.....	79 57	37 17	3 w	Carlsbad, N. Mex.....	104 15	32 26	13 e
Charleston, W. Va.....	81 38	38 21	2 w	Silver City, N. Mex.....	108 18	32 46	14 e
Raleigh, N. C.....	78 39	35 46	4 w	Idaho Falls, Idaho.....	112 1	43 30	18 e
Charlotte, N. C.....	80 50	35 14	2 w	Salmon, Idaho.....	113 54	45 11	20 e
Wilmington, N. C.....	77 57	34 14	3 w	Lewiston, Idaho.....	117 2	46 24	21 e
Columbia, S. C.....	81 2	34 0	1 w	Boise, Idaho.....	116 13	43 36	19 e
Charleston, S. C.....	79 56	32 47	2 w	Salt Lake City, Utah.....	111 54	40 46	17 e
Atlanta, Ga.....	84 23	33 45	2 e	Richfield, Utah.....	112 5	38 46	17 e
Savannah, Ga.....	81 5	32 5	0	Flagstaff, Ariz.....	111 41	35 13	15 e
Jacksonville, Fla.....	81 40	30 22	1 e	Phoenix, Ariz.....	112 4	33 29	15 e
Tampa, Fla.....	82 27	27 57	2 e	Nogales, Ariz.....	110 56	31 21	14 e
Miami, Fla.....	80 12	25 46	1 e	Las Vegas, Nev.....	115 12	36 10	16 e
Key West, Fla.....	81 48	24 33	3 e	Elko, Nev.....	115 47	40 49	18 e
Sault Ste. Marie, Mich.....	84 21	46 30	4 w	Austin, Nev.....	117 4	39 29	18 e
Detroit, Mich.....	83 3	42 20	3 w	Reno, Nev.....	119 49	39 30	18 e
Grand Rapids, Mich.....	85 40	42 58	1 e	Spokane, Wash.....	117 26	47 40	23 e
Cleveland, Ohio.....	81 37	41 28	5 w	Yakima, Wash.....	120 33	46 34	22 e
Columbus, Ohio.....	83 1	40 0	2 w	Seattle, Wash.....	122 20	47 37	23 e
Cincinnati, Ohio.....	84 30	39 8	1 e	Hoquiam, Wash.....	123 54	46 59	23 e
Louisville, Ky.....	85 46	38 15	1 e	Portland, Oreg.....	122 41	45 31	23 e
Knoxville, Tenn.....	83 56	35 57	0	Eugene, Oreg.....	123 5	44 3	22 e
Nashville, Tenn.....	86 47	36 10	3 e	Baker, Oreg.....	117 50	44 47	21 e
Memphis, Tenn.....	90 3	35 9	6 e	Klamath Falls, Oreg.....	121 44	42 10	19 e
Birmingham, Ala.....	86 50	33 30	3 e	Sacramento, Calif.....	121 30	38 35	17 e
Montgomery, Ala.....	86 18	32 21	3 e	San Francisco, Calif.....	122 26	37 47	18 e
Mobile, Ala.....	88 3	30 42	5 e	Fresno, Calif.....	119 48	36 44	17 e
Jackson, Miss.....	90 12	32 20	7 e	Los Angeles, Calif.....	118 15	34 3	16 e
Indianapolis, Ind.....	86 10	39 46	1 e	Needles, Calif.....	114 36	34 50	15 e
Milwaukee, Wis.....	87 55	43 2	2 e	San Diego, Calif.....	117 10	32 42	15 e
Chicago, Ill.....	87 37	41 50	2 e	El Centro, Calif.....	115 33	32 48	15 e
Springfield, Ill.....	89 38	39 48	4 e	St. John, N. B.....	65 10	45 18	22 w
Duluth, Minn.....	92 5	46 49	7 e	Quebec, Que.....	71 11	46 49	20 w
Minneapolis, Minn.....	93 14	44 59	7 e	Montreal, Que.....	73 35	45 30	16 w
Dubuque, Iowa.....	90 40	42 31	5 e	Ottawa, Ont.....	75 43	45 24	14 w
Des Moines, Iowa.....	93 37	41 35	7 e	Kingston, Ont.....	76 30	44 15	12 w
Kansas City, Mo.....	94 35	39 6	9 e	Toronto, Ont.....	79 24	43 40	8 w
St. Louis, Mo.....	90 12	38 35	5 e	London, Ont.....	81 34	43 2	5 w
Springfield, Mo.....	93 17	37 13	7 e	Port Arthur, Ont.....	89 17	48 30	1 e
Hot Springs, Ark.....	93 3	34 31	8 e	Winnipeg, Man.....	97 7	49 54	11 e
Shreveport, La.....	93 42	32 28	8 e	Moose Jaw, Sask.....	105 31	50 37	18 e
New Orleans, La.....	90 4	29 57	6 e	Calgary, Alta.....	114 1	51 1	23 e
Fargo, N. Dak.....	96 48	46 52	10 e	Nelson, B. C.....	117 17	49 30	23 e
Bismarck, N. Dak.....	100 47	46 48	14 e	Victoria, B. C.....	123 21	48 25	24 e

The World Calendar

FIRST QUARTER																													
JANUARY								FEBRUARY								MARCH													
S	M	T	W	T	F	S		S	M	T	W	T	F	S		S	M	T	W	T	F	S							
1	2	3	4	5	6	7						1	2	3	4							1	2						
8	9	10	11	12	13	14		5	6	7	8	9	10	11		3	4	5	6	7	8	9							
15	16	17	18	19	20	21		12	13	14	15	16	17	18		10	11	12	13	14	15	16							
22	23	24	25	26	27	28		19	20	21	22	23	24	25		17	18	19	20	21	22	23							
29	30	31						26	27	28	29	30				24	25	26	27	28	29	30							
SECOND QUARTER																													
APRIL								MAY								JUNE													
S	M	T	W	T	F	S		S	M	T	W	T	F	S		S	M	T	W	T	F	S							
1	2	3	4	5	6	7						1	2	3	4							1	2						
8	9	10	11	12	13	14		5	6	7	8	9	10	11		3	4	5	6	7	8	9							
15	16	17	18	19	20	21		12	13	14	15	16	17	18		10	11	12	13	14	15	16							
22	23	24	25	26	27	28		19	20	21	22	23	24	25		17	18	19	20	21	22	23							
29	30	31						26	27	28	29	30				24	25	26	27	28	29	30	W*						
THIRD QUARTER																													
JULY								AUGUST								SEPTEMBER													
S	M	T	W	T	F	S		S	M	T	W	T	F	S		S	M	T	W	T	F	S							
1	2	3	4	5	6	7						1	2	3	4							1	2						
8	9	10	11	12	13	14		5	6	7	8	9	10	11		3	4	5	6	7	8	9							
15	16	17	18	19	20	21		12	13	14	15	16	17	18		10	11	12	13	14	15	16							
22	23	24	25	26	27	28		19	20	21	22	23	24	25		17	18	19	20	21	22	23							
29	30	31						26	27	28	29	30				24	25	26	27	28	29	30							
FOURTH QUARTER																													
OCTOBER								NOVEMBER								DECEMBER													
S	M	T	W	T	F	S		S	M	T	W	T	F	S		S	M	T	W	T	F	S							
1	2	3	4	5	6	7						1	2	3	4							1	2						
8	9	10	11	12	13	14		5	6	7	8	9	10	11		3	4	5	6	7	8	9							
15	16	17	18	19	20	21		12	13	14	15	16	17	18		10	11	12	13	14	15	16							
22	23	24	25	26	27	28		19	20	21	22	23	24	25		17	18	19	20	21	22	23							
29	30	31						26	27	28	29	30				24	25	26	27	28	29	30	W†						

* The Leap-Year World Holiday, W or June 31 (an extra day), follows June 30 in leap years only.

† The Year-End World Holiday, W or December 31 (365th day), follows December 30 every year.

Exposition

The perpetual World Calendar divides the year into equal quarters of 91 days, or thirteen weeks, or three months, or approximately one season. The first month in each quarter contains 31 days. The other two months have 30 days each, every month having twenty-six weekdays plus Sundays. Every quarter with its monthly arrangement of 31-30-30 days begins on a Sunday, the first day of the week, and ends on a Saturday, the seventh day of the week, which is easy for business, accountants and educators because the closing

day of every quarter does not fall on a Sunday. Every year begins logically on the accepted first day of the week, a Sunday, January 1. This plan retains the customary arrangement of weekdays.

The 364-day year is not complete however. The 365th day of the year, essential in keeping the calendar in step with the seasons, is the logical Year-End World Holiday, dated W or December 31, that follows Saturday, December 30, every year. By giving the 365th day, the Year-End World Holiday, a name and date, a blank

date is avoided. This World Holiday is an integral part of the year; it belongs to and completes the calendar.

The extra day in leap years is the Leap-Year World Holiday, dated W or June 31, and follows Saturday, June 30. By placing these two stabilizing days, the Leap-Year World Holiday in leap years at the end of the second quarter and the Year-End World Holiday every year at the end of the fourth

quarter, the calendar in leap years becomes balanced, each half-year having 183 days. The calendar is thus a stable, balanced, well-coordinated time system.

Seventeen nations have already approved the World Calendar, including Afghanistan, Brazil, Chile, China, Czechoslovakia, Estonia, Greece, Hungary, Mexico, Norway, Panamá, Peru, Saudi Arabia, Spain, Syria, Turkey and Uruguay.

Perpetual Calendar

1800—2000 A.D.

Day of the month	Jan. Oct.	Apr. Jul. Jan.	Sept. Dec.	Jun.	Feb. Mar. Nov.	Aug. Feb.	May	
1 8 15 22 29.....	A	B	C	D	E	F	G	Mon.
2 9 16 23 30.....	G	A	B	C	D	E	F	Tue.
3 10 17 24 31.....	F	G	A	B	C	D	E	Wed.
4 11 18 25.....	E	F	G	A	B	C	D	Thur.
5 12 19 26.....	D	E	F	G	A	B	C	Fri.
6 13 20 27.....	C	D	E	F	G	A	B	Sat.
7 14 21 28.....	B	C	D	E	F	G	A	Sun.
	.....	.....	1800	1801	1802	1803	.....
	1804	1805	1806	1807	.....	1808	1809	
	1810	1811	.....	1812	1813	1814	1815	
	.....	1816	1817	1818	1819	.....	1820	
	1821	1822	.....	.....	1824	1825	1826	
	1827	.....	1828	1829	1830	1831	.....
	1832	1833	1834	1835	.....	1836	1837	
	1838	1839	.....	1840	1841	1842	1843	
	.....	1844	1845	1846	1847	.....	1848	
	1849	1850	1851	.....	1852	1853	1854	
	1855	.....	1856	1857	1858	1859	.....
	1860	1861	1862	1863	.....	1864	1865	
	1866	1867	.....	1868	1869	1870	1871	
	.....	1872	1873	1874	1875	.....	1876	
	1877	1878	1879	.....	1880	1881	1882	
	1883	.....	1884	1885	1886	1887	.....
	1888	1889	1890	1891	.....	1892	1893	
	1894	1895	.....	1896	1897	1898	1899	
	1900	1901	1902	1903	.....	1904	1905	
	1906	1907	.....	1908	1909	1910	1911	
	.....	1912	1913	1914	1915	.....	1916	
	1917	1918	1919	.....	1920	1921	1922	
	1923	.....	1924	1925	1926	1927	.....
	1928	1929	1930	1931	.....	1932	1933	
	1934	1935	.....	1936	1937	1938	1939	
	.....	1940	1941	1942	1943	.....	1944	
	1945	1946	1947	.....	1948	1949	1950	
	1951	.....	1952	1953	1954	1955	.....
	1956	1957	1958	1959	.....	1960	1961	
	1962	1963	.....	1964	1965	1966	1967	
	.....	1968	1969	1970	1971	.....	1972	
	1973	1974	1975	.....	1976	1977	1978	
	1979	.....	1980	1981	1982	1983	.....
	1984	1985	1986	1987	.....	1988	1989	
	1990	1991	.....	1992	1993	1994	1995	
	.....	1996	1997	1998	1999	.....	2000	

EXAMPLES

(1) Given Nov. 20, 1891, to find the day of the week. Under Nov., opposite 20, is G. In the 1891 column, opposite G is Fri., *ans.*

(2) Given Fri., Oct. —, 1868, to find the possible days of the month. In the 1868 column, opposite Fri. is G. Under Oct., G gives 2, 9, 16, 23, 30, *ans.*, the Fridays of Oct., 1868.

(3) Given Mon., — 5, 1811, to find the possible months. In the 1811 column, opposite Mon. is B. Opposite 5, B gives Aug., the only common-year month available, *ans.*

(4) Given Sat., Feb. 29, —, to find the possible years. Under Feb., leap-year, opposite 29, is F. Opposite Sat. F gives leap-years 1812, 1840 1868, 1896, etc., *ans.*

NOTE: In leap-years, use the Jan. and Feb. in italics, but do not use these for common years.

1952 JANUARY							FEBRUARY							MARCH							APRIL							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
—	—	1	2	3	4	5	—	—	—	—	—	1	2	—	—	—	—	—	—	1	—	—	—	—	—	—	—	
6	7	8	9	10	11	12	3	4	5	6	7	8	9	2	3	4	5	6	7	8	—	—	—	9	10	11	12	
13	14	15	16	17	18	19	10	11	12	13	14	15	16	9	10	11	12	13	14	15	13	14	15	16	17	18	19	
20	21	22	23	24	25	26	17	18	19	20	21	22	23	16	17	18	19	20	21	22	20	21	22	23	24	25	26	
27	28	29	30	31	—	—	24	25	26	27	28	29	—	23/30	24/31	25	26	27	28	29	27	28	29	30	—	—	—	
MAY							JUNE							JULY							AUGUST							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
—	—	—	—	—	1	2	1	2	3	4	5	6	7	—	—	—	—	—	—	1	—	—	—	—	—	—	1	2
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9	
11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16	
18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23	
25	26	27	28	29	30	31	29	30	—	—	—	—	—	27	28	29	30	31	—	—	24/31	25	26	27	28	29	30	
SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
—	1	2	3	4	5	6	—	—	—	—	—	1	2	3	4	5	6	7	8	9	—	—	—	—	—	—	1	2
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8	14	15	16	17	18	19	20	
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27	
28	29	30	—	—	—	—	26	27	28	29	30	31	—	23/30	24	25	26	27	28	29	28	29	30	31	—	—	—	
1953 JANUARY							FEBRUARY							MARCH							APRIL							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
—	—	—	—	—	1	2	1	2	3	4	5	6	7	—	—	—	—	—	—	1	—	—	—	—	—	—	—	
4	5	6	7	8	9	10	8	9	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
11	12	13	14	15	16	17	15	16	17	18	19	20	21	15	16	17	18	19	20	21	15	16	17	18	19	20	21	
18	19	20	21	22	23	24	22	23	24	25	26	27	28	22	23	24	25	26	27	28	22	23	24	25	26	27	28	
25	26	27	28	29	30	31	29	30	—	—	—	—	—	29	30	31	—	—	—	—	—	—	—	—	—	—	—	
APRIL							MAY							JUNE							JULY							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
—	—	—	—	—	1	2	—	—	—	—	—	—	1	—	—	—	—	—	—	1	2	—	—	—	—	—	—	
5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13	14	15	16	17	18	19		
12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20	21	22	23	24	25	26		
19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27	28	29	30	—	—	—		
26	27	28	29	30	—	—	24/31	25	26	27	28	29	30	28	29	30	—	—	—	—	—	—	—	—	—	—	—	
AUGUST							SEPTEMBER							OCTOBER							NOVEMBER							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
—	—	—	—	—	1	2	—	—	—	—	—	—	1	—	—	—	—	—	—	1	2	—	—	—	—	—	—	
5	6	7	8	9	10	11	3	4	5	6	7	8	9	6	7	8	9	10	11	12	13	14	15	16	17	18		
12	13	14	15	16	17	18	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
19	20	21	22	23	24	25	16	17	18	19	20	21	22	23	24	25	26	27	28	29	20	21	22	23	24	25	26	
26	27	28	29	30	31	—	23/30	24/31	25	26	27	28	29	30	27	28	29	30	—	—	—	—	—	—	—	—	—	
OCTOBER							NOVEMBER							DECEMBER							JANUARY							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
—	—	—	—	—	1	2	—	—	—	—	—	—	1	—	—	—	—	—	—	1	2	—	—	—	—	—	—	
4	5	6	7	8	9	10	1	2	3	4	5	6	7	6	7	8	9	10	11	12	13	14	15	16	17	18		
11	12	13	14	15	16	17	8	9	10	11	12	13	14	13	14	15	16	17	18	19	20	21	22	23	24	25		
18	19	20	21	22	23	24	15	16	17	18	19	20	21	20	21	22	23	24	25	26	27	28	29	30	31	—		
25	26	27	28	29	30	31	22	23	24	25	26	27	28	29	30	31	—	—	—	—	—	—	—	—	—	—	—	
1954 JANUARY							FEBRUARY							MARCH							APRIL							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
—	—	—	—	—	1	2	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	
3	4	5	6	7	8	9	7	8	9	10	11	12	13	7	8	9	10	11	12	13	4	5	6	7	8	9		
10	11	12	13	14	15	16	14	15	16	17	18	19	20	14	15	16	17	18	19	20	11	12	13	14	15	16		
17	18	19	20	21	22	23	21	22	23	24	25	26	27	21	22	23	24	25	26	27	18	19	20	21	22	23		
24/31	25	26	27	28	29	30	28	29	30	31	—	—	—	28	29	30	31	—	—	—	18	19	20	21	22	23	24	
MAY							JUNE							JULY							AUGUST							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	1	2	—	—	—	—	—	—	
2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13		
9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20		
16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27		
23/31	24	25	26	27	28	29	27	28	29	30	—	—	—	25	26	27	28	29	30	31	29	30	31	—	—	—	—	
SEPTEMBER			OCTOBER				NOVEMBER				DECEMBER				JANUARY				FEBRUARY									
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
—	—	—	—	—	1	2	—	—	—	—	—	—	1	—	—	—	—	—	—	1	2	—	—	—	—	—	—	
5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13	4	5	6	7	8	9		
12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20	11	12	13	14	15	16		
19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27	18	19	20	21	22	23		
26	27	28	29	30	31	—	24/31	25	26	27	28	29	30	28	29	30	31	—	—	—	18	19	20	21	22	23	24	

Morning and Evening Stars and Planets in 1953

MERCURY

Morning star, Jan. 1 to Feb. 2
 Evening star, Feb. 2 to Mar. 18
 Morning star, Mar. 18 to May 24
 Evening star, May 24 to July 25
 Morning star, July 25 to Sept. 7
 Evening star, Sept. 7 to Nov. 14
 Morning star, Nov. 14 to Dec. 31

VENUS

Evening star, Jan. 1 to Apr. 13
 Morning star, Apr. 13 to Dec. 31

Mercury may be observed over the western horizon after sunset for about 10 days before and after each eastern elongation, and similarly over the eastern horizon before sunrise before and after western elongations. Dates of elongation are given in the phenomena section. At the Mar. and Apr. elongations, *Mercury* is in Pisces, s.e. of the circlet; at the June and Aug. elongations it is in Cancer, about 11° s.e. of Pollux; at the Oct. elongation it is in Libra, 3° roughly e. of Iota; at the Dec. elongation it is in Libra, 5° e. of Alpha.

Venus is in Pisces at the Jan. elongation [see phenomena], s.e. of the circlet. In mid-Feb. it is in Pisces s.e. of the Great Square of Pegasus; in mid-March, s.w. of the bright stars of Aries; in mid-May in s. Pisces; at the June elongation in s. Aries; in mid-July in the Hyades in Taurus; in mid-Aug. in Gemini, s.w. of Pollux; in mid-Sept. in Leo, w. of Regulus; in mid-Oct. in w. Virgo; in mid-Nov. in e. Virgo.

Mars' positions are: in Jan. in Aquarius;

MARS

Evening star, Jan. 1 to Jul. 8
 Morning star, July 8 to Dec. 31

JUPITER

Evening star, Jan. 1 to May 24
 Morning star, May 24 to Dec. 13
 Evening star, Dec. 13 to Dec. 31

SATURN

Morning star, Jan. 1 to Apr. 14
 Evening star, Apr. 14 to Oct. 23
 Morning star, Oct. 23 to Dec. 31

in Feb. in s. Pisces; in Mar. in Pisces and s. Aries; in Apr. in Aries and Taurus; in the summer, too near the sun; on Sept. 1, in Leo, n.w. of Regulus; on Oct. 1, s.e. of Regulus; Nov. 1 in w. Virgo; Dec. 1, n.w. of Spica.

Jupiter is in Aries and Taurus until Apr. 1. In July it is in Taurus, n.e. of Aldebaran; in mid-Aug. s. of Auriga; in mid-Sept. n. of Orion; during the rest of the year, between Auriga and Orion; it is retrograde Oct. 14 to end of year.

Saturn is in Virgo, n.e. of Spica, in Jan.; in mid-July it is n. of Spica; too near the sun in Oct.; in Nov. and Dec. it is e. of Spica.

Uranus is in Gemini, s.w. of Pollux, Jan. to June, and approximately s. of Pollux, Oct. to Dec. *Neptune* is in Virgo, n. of Spica, the first few months, and roughly n.e. of Spica, Oct. to Dec. *Pluto* is in Leo, near Epsilon, in the mid-year, and in the middle of the sickle of Leo at the end of year. *Uranus* needs opera-glasses, *Neptune* a small telescope, *Pluto* a large one.

The Sun

There are countless millions of far distant, superheated, self-luminous gaseous bodies called stars and each one is in itself a sun. Our Sun—the star around which our whole solar system revolves—is at a mean distance of 93,003,000 miles from the Earth, has a diameter of 865,390 miles, a surface temperature of about 11,000° F. and an interior temperature estimated at millions of degrees. It has a surface area approximately 12,000 times that of the Earth and in volume or bulk it is about 1,306,000 times the size of the Earth. It is, nevertheless, a star of only average size and temperature.

The Sun rotates on its axis and, by observation of Sun-spots (great whirling storms in the Sun's atmosphere) and Faculae (bright streaks or areas on the Sun's surface), astronomers have discovered that the rotational speed varies from

approximately 24½ days at its equator to approximately 34 days near its poles. The Sun is just one star of the great Milky Way Galaxy that is rotating on its galactic axis at a rate that gives the Sun a galactic traveling speed of 175 miles per second. Furthermore, the Sun is moving toward a point known as "the apex of the Sun's way" in the constellation Hercules at a speed of about 12 miles per second.

What we see when we look at the Sun is the glowing surface called the Photosphere. Extending above this surface is the Sun's atmosphere consisting of two layers, one extending outward for a few hundred miles from the Sun's surface and called the Reversing Layer for spectroscopic reasons, the other an outer layer extending several thousand miles and called the Chromosphere because of its reddish color due mostly to superheated hydrogen, he-

Hydrogen and calcium. Solar "prominences" occasionally burst out from this layer and extend hundreds of thousands of miles above the Sun's surface. Beyond these layers of solar atmosphere and extending

to great height is the outermost observable solar feature, the magnificent Corona of exceedingly slight density that provides an awesome spectacle for observers during total eclipses of the Sun.

The Brightest Stars

Star	Constellation	Position, 1950			Mag.	Dist.	On meridian 9 p.m.
		R.A.	Dec.				
		h m °				l.-y.	
Sirius.....	Canis Major.....	6 42.9	-16 39	-1.6	8	Feb. 16	
Canopus.....	Carina.....	6 22.8	-52 40	-0.9	650	Feb. 11	
Alpha Centauri.....	Centaurus.....	14 36.2	-60 38	+0.1	4	June 16	
Vega.....	Lyra.....	18 35.2	+38 44	0.1	23	Aug. 15	
Capella.....	Auriga.....	5 13.0	+45 57	0.2	42	Jan. 24	
Arcturus.....	Boötes.....	14 13.4	+19 27	0.2	32	June 10	
Rigel.....	Orion.....	5 12.1	-8 15	0.3	545	Jan. 24	
Procyon.....	Canis Minor.....	7 36.7	+5 21	0.5	10	Mar. 2	
Achernar.....	Eridanus.....	1 35.9	-57 29	0.6	70	Nov. 30	
Beta Centauri.....	Centaurus.....	14 0.3	-60 8	0.9	130	June 7	
Altair.....	Aquila.....	19 48.3	+8 44	0.9	18	Sept. 3	
Betelgeuse.....	Orion.....	5 52.5	+7 24	0.9	300	Feb. 3	
Aldebaran.....	Taurus.....	4 33.0	+16 25	1.1	54	Jan. 14	
Spica.....	Virgo.....	13 22.6	-10 54	1.2	190	May 28	
Pollux.....	Gemini.....	7 42.3	+28 9	1.2	31	Mar. 3	
Antares.....	Scorpius.....	16 26.3	-26 19	1.2	170	July 14	
Fomalhaut.....	Piscis Austrinus.....	22 54.9	-29 53	1.3	27	Oct. 20	
Deneb.....	Cygnus.....	20 39.7	+45 6	1.3	465	Sept. 16	
Regulus.....	Leo.....	10 5.7	+12 13	1.3	70	Apr. 9	
Beta Crucis.....	Crux.....	12 44.8	-59 25	1.5	465	May 18	
Eta Carinae.....	Carina.....	10 43.1	-59 25	1-7	...	Apr. 17	
Alpha-one Crucis.....	Crux.....	12 23.8	-62 49	1.6	150	May 13	
Castor.....	Gemini.....	7 31.4	+32 0	1.6	44	Feb. 28	
Gamma Crucis.....	Crux.....	12 28.4	-56 50	1.6	...	May 15	
Epsilon Canis Majoris.....	Canis Major.....	6 56.7	-28 54	1.6	325	Feb. 19	
Epsilon Ursae Majoris.....	Ursa Major.....	12 51.8	+56 14	1.7	50	May 20	
Bellatrix.....	Orion.....	5 22.4	+6 18	1.7	215	Jan. 27	
Lambda Scorpii.....	Scorpius.....	17 30.2	-37 4	1.7	205	July 30	
Epsilon Carinae.....	Carina.....	8 21.5	-59 21	1.7	325	Mar. 13	
Mira.....	Cetus.....	2 16.8	-3 12	2-9	250	Dec. 11	
Epsilon Orionis.....	Orion.....	5 33.7	-1 14	1.7	405	Jan. 29	
Beta Tauri.....	Taurus.....	5 23.1	+28 34	1.8	115	Jan. 27	
Beta Carinae.....	Carina.....	9 12.7	-69 31	1.8	...	Mar. 26	
Alpha Trianguli Australis.....	Triangulum Australe.....	16 43.4	-68 56	1.9	130	July 18	
Alpha Persae.....	Perseus.....	3 20.7	+49 41	1.9	190	Dec. 27	
Eta Ursae Majoris.....	Ursa Major.....	13 45.6	+49 34	1.9	220	June 3	
Gamma Geminorum.....	Gemini.....	6 34.8	+16 27	1.9	65	Feb. 14	
Epsilon Sagittarii.....	Sagittarius.....	18 20.9	-34 25	1.9	165	Aug. 12	
Alpha Ursae Majoris.....	Ursa Major.....	11 0.7	+62 1	1.9	90	Apr. 22	
Delta Canis Majoris.....	Canis Major.....	7 6.4	-26 19	2.0	410	Feb. 22	

Comets

In ancient times comets were supposed to be omens of sudden death, war, revolution or other dire events in human affairs and practically nothing was known of their true nature. They still offer puzzling problems to modern astronomers and, with about 1000 listed, new ones are being discovered and charted each year. In general, comets consist of a nucleus (sometimes lacking) surrounded by a head or "coma" (from the Greek word for hair because of

its hazy appearance) from which extends the great tail that makes the passage of a comet through our skies such a striking spectacle. Comets come in varying sizes but the average diameter of the heads of a large number of observed comets is about 80,000 miles and the tail length may stretch out to more than 100,000,000 miles. The density of comets is so low, however, that we can see the stars through them and there is more actual material in one

cubic inch of ordinary air than in 2000 cubic miles of the tail of a comet.

The luminous tails of comets were believed, for many centuries, to be merely clouds high in our atmosphere. Tycho Brahe, eccentric Danish astronomer, proved that the comet he observed in 1577 was a celestial object far beyond the limit of the Earth's atmosphere. But the great forward step in the study of comets came when Edmund Halley, who became England's Astronomer Royal, carefully observed a comet in 1682, checked with previous observations, calculated its orbit and predicted its return to our skies in 1758 or 1759. Halley died in 1742 but the comet, now named after him, reappeared on schedule and a search through ancient records indicated that it had been observed in repeated appearances as far back as 240 B.C. Its last appearance was marked by its perihelion passage in 1910 and its next visit to our skies will occur in 1986. Halley's fulfilled prediction was the first definite proof that comets have regular orbits and time schedules or are, as the astronomers say, "periodic". The known "periods" (time intervals between appearances) of comets vary from the 3.3 years of Encke's Comet to thousands of years for wider travelers. No known great comets are scheduled for appearance in our sky this year.

A curious thing about comets is that their tails always trail from the head in a direction away from the Sun, so that when

a comet is moving away from the Sun, the tail stretches out in front of the head. A comet's tail is so tenuous as to be almost a vacuum. The Earth passed through the tail of Halley's Comet in May, 1910, and on that occasion astronomers heard nothing, felt nothing and saw nothing to indicate that such passage had any observable effect on the Earth.

20 Famous Comets

Year and no.	Name of comet	Period
		years
1744	De Chéseaux's Comet.....	.....
1806	Biela's Comet.....	6.7
1811 I	Great Comet of 1811.....	3000
1812	Di Vico's Comet.....	70.7
1815	Olbers' Comet.....	74.0
1819 I	Encke's Comet.....	3.3
1819	Pons-Winnecke Comet.....	6.0
1835 III	Halley's Comet.....	76.3
1843 I	Great Comet of 1843.....	512.4
1844 II	Great Comet of 1844.....	102,050
1858 VI	Donati's Comet.....	2,040 (?)
1864 II	Great Comet of 1864.....	2,800,000
1871 III	Tuttle's Comet.....	13.8
1874 III	Coggia's Comet.....	6,000 (?)
1879	Brorsen's Comet.....	5.6
1881 II	Tebbutt's Comet.....	.....
1889 VI	Swift's 2nd Comet.....	7.0
1892 III	Holmes' Comet.....	6.9
1923	d'Arrest's Comet.....	6.6
1925 II	Comet Schwassmann-Wachmann..	16.2

The Polar Auroras

It has been definitely established that Sun-spots are the direct cause of the greatest electrical show on Earth, a double feature, the Aurora Borealis (Northern Lights) and the Aurora Australls (Southern Lights). Sun-spots are magnetic storms of vast dimensions on the surface of the Sun and they shoot out electrified particles into space. Those that come toward the Earth are drawn toward the Earth's magnetic poles and consequently these magnetic poles are the radiating centers of those spectacular electromagnetic displays in the sky that we commonly call the "Northern Lights" or the "Southern Lights", depending upon whether we see them in the northern or southern hemisphere. The electrical particles from the Sun-spots strike the upper regions of our atmosphere where the component gases (nitrogen, oxygen and extremely minor amounts of argon, helium, neon, hydrogen and carbon dioxide) are very much rarefied and cause them to vibrate and glow in colors characteristic of the various elements, just as a neon sign glows when an electric charge is passed through it. The Sun-spots that cause auroral displays also cause the magnetic storms that interfere

with radio reception, telephone, telegraph and cable traffic and other electromagnetic devices such as compasses and various aviation accessories.

There is an almost infinite variety to the auroral display. The lights may sweep across the sky in waves, in streamers or in folds like draped curtains. Or it may be a stationary glow. Sometimes there is little or no color in these waves, sheets or streamers of light. At other times the lights may be rich in red or green or pastel shades. Rose color and lavender and violet and purple are common. Blue is rare but has been seen. The "Northern Lights" have been seen as far south as New Orleans and the Florida peninsula and the "Southern Lights" have been seen as far north as New Zealand and Australia, but the maximum occurrence of these auroral displays is along the borders of the Arctic and Antarctic regions. Since these are atmospheric displays, our atmosphere must extend to the extreme height at which auroral lights are observed. Prof. Carl Störmer of the University of Oslo found this to be about 600 miles. He further found that no auroral lights came closer to the Earth's surface than 50 or 60 miles.

The Change of Seasons

It is enough to state that the Earth is nearer to the Sun in January than it is in July to convince those who live in the northern hemisphere that there must be some other explanation than that for the seasonal changes on our globe. The reason for the change in seasons is that the axis of rotation of the Earth is tipped to the perpendicular of the plane of its orbit around the sun at an angle of approximately $23\frac{1}{2}$ degrees (more accurately, it varies in 1953 from $23^{\circ} 26' 46''.4$ to $23^{\circ} 26' 49''.8$), and consequently there is a proportional shifting of the angle of the Sun's rays falling on different portions of the Earth's surface at different times of year.

On or about June 21 the north end of the Earth's axis is tipped to its limit toward the Sun. In the northern hemisphere this is our Summer Solstice. We then have our longest days and receive a maximum of heat and light from the Sun whose perpendicular rays are falling on the Tropic of Cancer, $23\frac{1}{2}$ degrees north of the Equator. Six months later, on or about Dec. 21, the Earth has reached a position in its orbit that finds the north

end of its axis tipped at its maximum away from the Sun. This is our Winter Solstice. We then have our shortest days and receive a minimum of heat and light from the Sun that is hovering over the Tropic of Capricorn, $23\frac{1}{2}$ degrees south of the Equator. Conditions are reversed in the southern hemisphere for obvious reasons. Their Winter is our Summer; their Summer our Winter. Twice a year, at the equinoxes in March and September, the Sun is on the Equator, the day is of equal length all over the world and each hemisphere receives the same amount of light and heat from the rays of the Sun.

If the effect in the change of the angle of the Sun's rays on the Earth's surface were instantaneous, our coldest period would be at the Winter Solstice and our warmest period at the Summer Solstice, but due to the blanket of atmosphere around the Earth and the cumulative effect in the heating or cooling of the Earth's surface, we have "the lag of the seasons" that brings our warmest and coldest periods some five or six weeks after the Sun is "farthest north" or "farthest south".

Seasons for the Northern Hemisphere, 1953

Eastern Standard Time

Mar. 20 5:01 P.M. Sun enters sign of Aries; spring begins.

June 21 12:00 noon Sun enters sign of Cancer; summer begins.

Sept. 23 3:07 A.M. Sun enters sign of Libra; autumn begins.

Dec. 21 10:32 P.M. Sun enters sign of Capricornus; winter begins.

Planet Table

	Mean distance from sun in millions of miles	Period of revolution around the sun	Eccentricity of orbit	Inclination to ecliptic	Diameter	Period of rotation on axis	Inclination of equator to orbit plane	Surface gravity (earth = 1)	Oblateness	Mean velocity in orbit	Max. stellar mag.
				° ' "	miles		°			mi./sec.	
Sun.....					865,390	$24^d.64^h$	7.2	28	0	.....	-26.7
Moon.....		$(27^d.322)^*$	0.05	5 8	2,159.9	$27^d.322$	6.7	0.16	0	0.63	-12.6
Mercury....	36.00	87 ^d .969	0.21	7 0	3,008.5	88 ^d	7	0.28	0	30	-1.2
Venus.....	67.27	224 ^d .701	0.01	3 24	7,575.4	† †	†	0.85	0	22	-4.4
Earth.....	93.00	365 ^d .256	0.02	0 0	7,926.7 ⁵	$23^h 56^m$	23.4	1.00	1/297	18.5	.....
Mars.....	141.71	1 ^y .881	0.09	1 51	4,215.6	$24^h 37^m$	25.2	0.38	1/192	15	-2.8
Jupiter....	483.88	11 ^y .852	0.05	1 18	88,698 ⁵	$9^h 50^m$ †	3.1	2.6	1/15	8	-2.5
Saturn.....	887.14	29 ^y .468	0.06	2 29	75,060 ⁵	$10^h 14^m$ †	26.8	1.1	1/9.5	6	-0.4
Uranus.....	1783.98	84 ^y .013	0.05	0 46	30,878	$10^h \frac{3}{4}$ ^b	98	0.9	1/14	4	+5.7
Neptune....	2795.45	164 ^y .793	0.01	1 46	27,700	$15^h.8$	29	1.1	1/40	3	+7.8
Pluto.....	3675.27	248 ^y .430	0.25	17 9	3,600	††	††	††	††	<3	+14

* Period of revolution around the earth.

† This is the rotation at the equator.

‡ Rotation of Venus is uncertain but is probably a few weeks.

§ The equatorial diameters of the earth, Jupiter, and Saturn are given; polar diameters are: earth, 7900.0 mi., Jupiter 82,789 mi., Saturn 67,170 mi.

|| SATELLITES. The number of known moons in the solar system is now as follows: for the earth 1; Mars 2; Jupiter 12; Saturn 9; Uranus 5; Neptune 2.

The Moon

The planet Mars has two tiny satellites or moons, Jupiter has twelve, Saturn nine, Uranus five, and Neptune two. The Earth has one comparatively large satellite that is commonly called the Moon. It is a globe of approximately 2160 miles in diameter with a surface deeply pitted by great craters. It has no atmosphere that astronomers can detect and shines only by reflected light of the Sun. Though it seems bright to us at "full moon", it reflects only about 7 per cent of the light poured on it by the Sun.

The path of the Moon on its travels around the Earth is elliptical, with the Earth at one focus of the ellipse. The distance of the Moon from the Earth varies from 221,463 miles (perigee) to 252,710 miles (apogee), the average distance being 238,860 miles. The really curious thing about the Moon is that it revolves around the Earth in 27 days, 7 hours, 43 minutes, 11.47 seconds and *rotates on its axis in exactly the same time*, which is why we always see the same side of the Moon. Due to what are known as "librations in latitude and longitude" and also a "diurnal libration", we do see "around the edge of

the Moon" at different times and in this manner a total of 59 per cent of the Moon's surface has been observed, but the other 41 per cent never has been seen by human eye.

Although the Moon revolves around the Earth in approximately 27½ days, it is, on the average, a matter of 29½ days (29 days, 12 hours, 44 minutes, 2.78 seconds) from one New Moon to the other because the Earth is moving around the Sun while the Moon is moving around the Earth and the "New Moon" depends upon the relative positions of the three bodies. If the planes of orbit of the Earth and the Moon coincided, there would be an eclipse of the Moon at every "Full Moon" and an eclipse of the Sun at every "New Moon", but the (approximately) 5-degree angle between the planes of orbit of the Earth and the Moon causes the Moon on most of its revolutions to miss the Earth's shadow and the Moon's shadow on most trips to miss falling on the Earth. The tidal effects of the Moon are, of course, well known. The "Spring Tides" occur at "Full Moon" and "New Moon" and the "Neap Tides" at "First Quarter" and "Last Quarter".

Eclipses and Transit of Mercury, 1953

(1) *Total eclipse of the moon, Jan. 29*, visible in western Asia, Europe, Africa, the Atlantic Ocean, parts of South America, and in general the eastern parts of North America. The total phase is visible in the eastern U. S. but not in the Pacific states, as the moon there does not rise soon enough.

Eastern standard time

Moon enters penumbra	Jan. 29, 3:40 P.M.
Moon enters umbra	4:54
Total eclipse begins	6:05
Mid-eclipse	6:47
Total eclipse ends	7:30
Moon leaves umbra	8:40
Moon leaves penumbra	9:55 P.M.

(2) *Partial eclipse of the sun, Feb. 13*, visible in eastern Asia, from Indo-China to the northeastern tip of Asia (including Japan and the northern part of the Philippine Is.), and in western Alaska. At the maximum, less than 0.8 of the sun is eclipsed. At Nome, Alaska, less than 0.3 is eclipsed, and mid-eclipse occurs at 3:03 P.M., 165th-meridian-west standard time.

(3) *Partial eclipse of the sun, July 10*, visible from the northern half of Greenland, and in the northern and northwestern parts of Canada. The end phase is visible from the extreme northwestern parts of the U. S. This is a small eclipse, only 0.2 of the sun being eclipsed at the maximum. At Seattle, Wash., only 0.02 of the sun is eclipsed at maximum, mid-eclipse occurring at 7:38 P.M., P.S.T.

(4) *Total eclipse of the moon, July 26*, visible in general in the Pacific Ocean, Australia, and eastern Asia. The beginning is visible in the western parts of North America. Totality is invisible in the eastern U. S., because the moon sets too soon, but the Pacific states see part of the total phases.

Pacific standard time

Moon enters penumbra	Jul. 26 1:36 A.M.
Moon enters umbra	2:33
Total eclipse begins	3:30
Mid-eclipse	4:21
Total eclipse ends	5:11
Moon leaves umbra	6:09
Moon leaves penumbra	7:05 A.M.

(5) *Partial eclipse of the sun, Aug. 9*, visible from the southern end of South America, south of a line from Concepción, Chile, to Rawson, Argentina. Less than 0.4 of the sun is eclipsed.

Transit of Mercury over the sun's disc, Nov. 14, visible partly in western Europe and Africa, and in general in North America and South America. Mercury appears as a small black disc passing across the northeastern part of the sun, not far from the limb. For New York the beginning (ingress) occurs at 10:36½ A.M., E.S.T., and the ending (egress) at 1:12 P.M., E.S.T. For other stations in the U. S. the times of ingress and egress are almost exactly the same; the hour may be shifted for other time zones. (For ex., ingress at Denver occurs at 8:37 A.M., M.S.T.)

Astronomical Constants

1 light-year	5,880,000,000,000 mi.
velocity of light	186,272 mi./sec.
astronomical unit or distance earth-to-sun	93,003,000 mi.
mean distance, earth to moon	238,860 mi.
general precession	50".26
obliquity of the ecliptic	23° 27' 8".26—0".4684 (t—1900) *
equatorial radius of the earth	3963.34 statute mi.
polar radius of the earth	3949.99 statute mi.
earth's mean radius	3958.89 statute mi.
oblateness of the earth	$\frac{1}{297.0}$
equatorial horizontal parallax of the moon	57' 2".70
earth's mean velocity in orbit	18.5 mi./sec.
sidereal year	365 ^d .2564
tropical year	365 ^d .2422
sidereal month	27 ^d .3217
synodic month	29 ^d .5306
sidereal day	23 ^h 56 ^m 4".091 of mean-solar time
mean solar day	24 ^h 3 ^m 56".555 of sidereal time

* t refers to the year in question, for example 1948.

The Atmosphere

The atmosphere of the Earth—the blanket of air that surrounds our globe and is essential to life—is of interest to astronomers because of its effect on the light that comes to us from heavenly bodies. Air has weight and volume. It refracts (bends or changes the direction of) light rays that enter it. Due to this refraction, we are able to see the Sun and the Moon before they rise and after they set. The "twinkling" of the stars is caused by convection currents in the air that have a rapidly changing refractive effect on the light from the stars. Our twilight is produced by the diffusion in the atmosphere of light from the Sun when it is below the horizon. Meteors become visible when they are heated to incandescence by friction with the atmosphere when, from outer space, they plunge into it at terrific speed.

Prof. Carl Störmer of the University of

Oslo measured the height of the atmosphere and found it to be more than 600 miles, but about half of it by weight is below 18,000 feet. Although we may remark blandly that something is "as light as air", the Earth's atmosphere in bulk is of such enormous weight that at sea level it exerts a pressure of approximately 14.7 pounds per square inch. At higher levels, of course, the pressure is less.

Chemically, the atmosphere is composed of nitrogen (approximately 78 per cent by volume), oxygen (approximately 21 per cent by volume), and extremely minor amounts (about 1 per cent in all by volume) of argon, neon, helium, hydrogen and carbon dioxide. There is also present in the air a varying amount of water vapor, which is known as humidity and is distressing when the percentage is high in warm weather.

Important Meteor Showers

Date	Meteor stream	Radiant in constellation
Jan. 1-4	Quadrantids.....	Boötes
Feb. 5-10	Alpha Aurigids.....	Auriga
Mar. 10-12	Zeta Boötids.....	Boötes
Apr. 18-23	Lyrids.....	Hercules
May 1-6	May Aquarids.....	Aquarius
May 30	Eta Pegasids.....	Pegasus
June 27-30	Pons-Winnecke meteors.....	Draco
July 14	Alpha Cygnids.....	Cygnus
July 26-31	Delta Aquarids.....	Aquarius
Aug. 10-14	Perseids.....	Cassiopeia
Aug. 10-20	Kappa Cygnids.....	Cygnus
Aug. 21-31	Zeta Draconids.....	Draco
Sept. 22	Alpha Aurigids.....	Auriga
Oct. 2	Quadrantids.....	Boötes
Oct. 9	Giacobinids.....	Draco
Oct. 13-23	Orionids.....	Orion
Nov. 14-18	Leonids.....	Leo
Dec. 10-13	Geminids.....	Gemini

Meteors and Meteorites

Meteorites are meteors that have come down to Earth. Meteors are masses of mineral or metal or both that plunge into the Earth's atmosphere at great speed and become incandescent from the resultant friction so that they are seen in the sky as "fireballs" (bolides) or "shooting stars". The "fireballs" are the larger, make a greater flash across the sky and sometimes explode. Meteors come in all sizes but most of them verge on the microscopic and burn up completely in the flash that makes them visible from 40 to 60 miles above the Earth's surface. Millions of them enter our atmosphere every twenty-four hours and probably not more than one or two a day survive to strike the ground as meteorites.

The largest meteorite ever found is located near Grootfontein, Southwest Africa, and its weight is estimated between 50 and

70 tons. The second largest meteorite (the Ahnighito, weight $36\frac{1}{2}$ tons) was found by Admiral Peary, Arctic explorer, at Cape York, Greenland, and is now on exhibition in the Hayden Planetarium, New York City. The largest meteorite found on United States soil is the Willamette (weight $15\frac{1}{2}$ tons), which fell near Portland, Oreg., and is now in the American Museum of Natural History, New York City.

Craters produced by the fall of meteorites have been found in many countries. The first to be recognized and the largest known is Meteor Crater in Arizona, a depression about 4,000 feet in diameter, about 600 feet deep, and with exterior walls rising 150 feet above the surrounding plain. Me-

teor craters have been found near Odessa, Texas; Haviland, Kansas; in the Arabian Desert; in Central Australia and—a notable group of fifty or more—in the region of the Stony Tunguska River in northern Siberia.

Many meteors travel in swarms, believed in some cases to be disintegrated comets. The Perseld shower that occurs annually Aug. 10-14 is thought by some astronomers to be all that remains of Tuttle's Comet and the Leonid shower, which reaches a maximum in mid-November every 33 years, similarly is suspected of being what is left of Tempel's Comet. The Leonid shower of 1833 was the greatest meteor display of which astronomers have record.

Projection Planetaria

Dr. Robert G. Aitken, Director Emeritus of the Lick Observatory, called the Zeiss Projector in planetarium use "the most remarkable instrument that has ever been devised to exhibit impressively, and with the illusion of reality, the motions of the heavenly bodies and the phenomena that result from these motions". The first of these projectors was invented and developed by Dr. Walter Bauersfeld at the Carl Zeiss plant at Jena, Germany, and the first planetarium in which it was put to use was in the Deutsches Museum in Munich, May, 1925. Between that time and the outbreak of World War II, twenty-seven other such Zeiss Projectors were constructed and shipped for use in planetaria spread around the world. Some smaller planetaria, with other projectors, have been built and are in operation in various places in the United States and Canada.

The Zeiss Projector planetaria in the

United States are, in the order in which they were built:

Adler Planetarium, 900 E. Achsah Bond Drive, Chicago 5, Ill.

Director, Wagner Schlesinger.

Fels Planetarium, 20th St., Benjamin Franklin Parkway, Philadelphia 3, Pa.
Director, I. M. Levitt.

Griffith Planetarium, P.O. Box 9787, Los Feliz Station, Los Angeles 27, Calif.
Director, Dinsmore Alter.

Hayden Planetarium, 81st St., Central Park West, New York 24, N. Y.
Chairman, Robert R. Coles.

Buhl Planetarium, Federal and West Ohio Sts., Pittsburgh 12, Pa.
Director, Arthur L. Draper.

Morehead Planetarium, University of North Carolina, Chapel Hill, N. C.
Manager: A. Jenzano.

Notable Telescopes of the World

Refractor Telescopes

Size in inches	Observatory	Location
40	Yerkes	Williams Bay, Wis.
36	Lick	Mt. Hamilton, Calif.
32.7	Paris (Univ. of)	Meudon, France
31.5	Astrophysical	Potsdam, Germany
30	Allegheny	Pittsburgh, Pa.
30	Bischoffsheim	Nice, France
30	Poulkova	Leningrad, U.S.S.R.

Reflector Telescopes

200	Palomar	Palomar Mt., Calif.
100	Mt. Wilson	Pasadena, Calif.
82	McDonald	Mt. Locke, Texas
74	Dunlap	Richmond Hill, Ont.
72	Lord Ross (dismantled)	Parsonstown, Ireland
72	Dominion Astrophysical	Victoria, B. C.
69	Perkins	Delaware, Ohio
61	Harvard	Oak Ridge, Mass.
60	Bloemfontein	Bloemfontein, U. of S. Af.
60	Mt. Wilson	Pasadena, Calif.
60	Córdoba	Bosque Alegre, Argentina

Astronomical Photography

Since almost all astronomical research is now carried on by photographing the heavenly bodies, cameras and telescopes designed for this purpose are of the utmost importance.

What many astronomers consider the greatest advance in the making of astronomical instruments in the last fifty years was the production of the Schmidt Camera. The details of construction and method of operation of this camera were made known in 1930 by Bernhard Schmidt of the Hamburg Observatory at Bergedorf, Germany. The Schmidt Camera takes photographs with large fields of vision and sharp definition at much greater speed than was possible with earlier apparatus. Schmidt Cameras as fast as $f/0.6$ have been made, and those with a speed of $f/1$ are common. These remarkable cameras have been installed at many observatories in various parts of the world.

Record Passages of Atlantic (Screw) Steamships

Source: Maritime Administration, July 22, 1952.

WESTWARD PASSAGES

EASTWARD PASSAGES

Date	Ship and (flag*)	To New York from	Time D. H. M.	Speed knots	Sea miles	Date	Ship and (flag*)	From New York to	Time D. H. M.	Speed knots	Sea miles
1867	CITY OF PARIS (B) (Time record only)	Queenstown	8 4 1	.....	.....	1852	GREAT BRITAIN (B)	Liverpool	11 0 0	.....	.....
1872	ADRIATIC (B)	"	7 23 17	14.52	.....	1869	CITY OF BRUSSELS† (B)	Queensstown	7 22 3	14.65	.....
1875	CITY OF BERLIN† (B)	"	7 18 2	15.2	.....	1873	BALTIC† (B)	"	7 20 9	15.11	.....
1875	GERMANIC (B)	"	7 11 37	15.75	.....	1875	CITY OF BERLIN† (B)	"	7 15 28	15.37	.....
1877	BRITANNIC (B)	"	7 10 53	15.46	.....	1876	GERMANIC† (B)	"	7 15 17	15.78	.....
1877	ALASKA† (B)	"	6 21 40	16.04	.....	1876	BRITANNIC† (B)	"	7 12 41	15.95	.....
1882	OREGON† (Guion) (B)	"	6 10 9	18.16	.....	1879	ARIZONA† (B)	"	7 8 0	15.95	.....
1884	OREGON (Cunard) (B)	"	6 9 42	18.16	.....	1882	ALASKA† (B)	"	6 18 37	16.88	.....
1887	UMBRIA (B)	"	6 4 34	18.91	.....	1883	OREGON (Guion) (B)	"	6 16 57	17.8	.....
1885	ETRURIA† (B)	"	6 1 44	19.57	.....	1884	AMERICA (B)	"	6 14 8	18.18	.....
1888	CITY OF PARIS† (B)	"	5 14 24	20.1	.....	1885	ETRURIA† (B)	"	6 4 54	19.41	.....
1889	TEUTONIC† (B)	"	5 16 31	20.35	.....	1888	UMBRIA (B)	"	6 3 12	19.49	.....
1890	MAJESTIC† (B)	"	5 18 8	20.11	.....	1889	CITY OF PARIS† (B)	"	5 22 50	19.78	.....
1891	CAMPANIA (B)	"	5 9 6	21.82	.....	1891	TEUTONIC (B)	"	5 21 3	20.1	.....
1893	LUCANIA† (B)	"	5 7 23	22.07	.....	1892	CITY OF NEW YORK (B)	"	5 19 57	20.1	.....
1894	KAISER WILHELM DER GROSSE† (G)	Southampton	5 15 20	22.29	.....	1894	LUCANIA† (B)	"	5 8 38	22.01	.....
1898	DEUTSCHLAND (G)	"	5 11 54	23.15	3,044	1897	KAISER WILHELM DER GROSSE† (G)	Southampton	5 15 25	22.51	.....
1901	LUSITANIA† (B)	Queensstown	4 11 40	25.88	.....	1898	DEUTSCHLAND† (G)	Eddystone Lt.	5 7 38	23.51	3,082
1907	MAURETANIA† (B)	"	4 10 41	26.06	.....	1900	KAISER WILHELM II† (G)	Plymouth	5 8 16	23.58	.....
1911	BREMEN† (G)	Cherbourg	4 21 44	27.83	.....	1901	LUSITANIA† (B)	Queensstown	4 15 50	25.57	.....
1929	EUROPA† (G)	"	4 17 6	27.91	.....	1908	MAURETANIA† (B)	"	4 13 41	25.89	.....
1930	REXT† (I)	Gibraltar	4 13 58	28.92	3,157	1911	" (B)	Cherbourg Plymouth	5 1 49	26.25	3,198
1933	NORMANDIE† (F)	Bishop's Rock	4 3 2	29.98	3,015	1924	" (B)	"	4 17 50	27.22	3,098
1935	QUEEN MARY† (B)	"	3 21 48	30.99	2,907	1929	BREMEN† (G)	Cherbourg	4 14 30	28.14	3,084
1936	UNITED STATES† (US)	Bishop's Rock	3 12 12	34.51	2,906	1933	NORMANDIE† (F)	"	4 16 15	28.51	3,199
1952	"	"	3 12 12	34.51	2,906	1936	QUEEN MARY† (B)	Bishop's Rock	4 3 25	30.35	2,978
						1938	UNITED STATES† (US)	"	3 23 57	30.63	2,938
						1952	UNITED STATES† (US)	Bishop's Rock	3 10 40	31.69	3,144

* (B)—British; (G)—German; (I)—Italian; (F)—French. †Vessels which have held the Blue Ribband.

THE OTHER NATIONS OF THE WORLD



A GUIDE TO MAIN HISTORICAL, POLITICAL, ECONOMIC,
GEOGRAPHIC AND SOCIAL FACTS

Prepared by the Staff of ENCYCLOPAEDIA BRITANNICA

Under the direction of
WALTER YUST, Editor-in-chief

A record of later events may be found in the section: NEWS RECORD OF 1952.

Afghanistan (Kingdom)

Area: approx. 270,000 square miles.
Population (est. 1950): 12,000,000 (approx. 53% Afghan, 36% Tadchik, 11% Mongolian and others).
Density per square mile: 44.
Ruler: Mohammed Zaher Shah.
Prime Minister: Sardar Shah Mahmud.
Principal cities (est.): Kabul, 206,000 (capital); Kandahar, 77,000 (trading center); Herat, 76,000 (farming center).
Monetary unit: Afghani rupee.
Languages: Pushtu (official), Persian.
Religion: Mohammedan (Sunni, 90%; Shiah, 10%).

HISTORY. Wedged between Pakistan, Iran and the U.S.S.R. in southwestern Asia without outlet to the sea, Afghanistan did not become an independent state until 1747. Previously, it had been either a cluster of small states under nominal Arab rule, part of Mongol or Mogul empires, or dismembered among India, Persia and the Uzbeks.

By the 19th century Afghanistan had passed into the British sphere of influence, though the British had to dispatch troops more than once to enforce Afghan friendliness. In 1880 the British recognized Abdur Rahman Khan as Emir and gave him an annual subsidy of more than \$500,000 to delegate management of his foreign relations to Britain. His son, Habibullah, succeeded him in 1901 and kept Afghanistan neutral in World War I despite strong pressure of pro-Turkish elements.

On Aug. 8, 1919, a treaty was signed making Afghanistan free and independent of all British control. The country maintained strict neutrality in World War II, and was admitted to the United Nations in Nov., 1946. Relations with Pakistan have

been strained by a dispute over areas inhabited by the Pathans in the North West Frontier Province.

GOVERNMENT. Under the 1932 constitution, Afghanistan is a constitutional monarchy, with authority vested in the sovereign and parliament, which has a senate of 60 members who are named for life by the sovereign and a national assembly of 120 elected members. Executive power is exercised by the sovereign and cabinet headed by the prime minister. The sovereign, Mohammed Zaher Shah, was born Oct. 15, 1914.

Military service is compulsory. The army strength is about 90,000, supplemented by tribal bands. There is a small air force.

SOCIAL AND ECONOMIC CONDITIONS. Education is nominally compulsory. Primary schools exist in many parts of the country, but secondary schools only in Kabul and provincial capitals. There were about 100,000 pupils in 425 schools in 1948. There is a university at Kabul.

Only a fifth of the soil is under cultivation, the greater part of the country being mountainous and rocky. Farming is confined to the fertile valleys and plains, sometimes with the aid of irrigation. Two crops a year are usually grown. Important ones include fruits and nuts, castor beans, cereals, madder, tobacco, cotton and vegetables. Wheat is the staple food. The fat-tailed indigenous sheep is the principal source of meat, wearing apparel and skins for export. Camels, humped cattle, oxen and asses are numerous.

Important manufactures include silk, felt, sheepskin coats, soap, carpets and boots. Factories have been erected by gov-

ernment monopolies to produce skins, sugar, textiles, vehicles, and power.

Among the leading exports are karakul skins (mostly to the U.S.), cotton, wool, rugs, carpets and dried fruits.

Most of the trade normally is carried on through Pakistan; wool is exported to the U.S.S.R. in return for consumers' goods. Exports in 1948-49 were estimated at Rs. 900,000,000 and imports at slightly less than that amount.

Afghanistan has no railways or navigable streams. Camels and pack horses are still used by the natives, but motor transport is of increasing importance. The principal trade routes lead south through the Khyber and Khojak Passes to Pakistan, and north to the Uzbek and Turkmen Soviet Socialist Republics. There are about 6,000 miles of roads suitable for motor transport.

Both mineral and forest resources are largely unexploited. There are deposits of chromite, coal, copper, gold, iron ore, oil and silver. Timber and gum resin are obtained.

NATURAL FEATURES; CLIMATE. Afghanistan, approximately the size of Texas, is split east to west by the Hindu Kush range of the Himalayas, rising in the east to heights of 24,000 feet. Except in the southwest, most of the country is covered by high snow-capped mountains and deep valleys. The few passes are deep and narrow. The Amu Darya (Oxus), Kabul and Helmand are the most important rivers, and there are hundreds of swift and unnavigable mountain streams. The climate ranges from extremes of below zero to more than 100° in the north; however, it is not so extreme in the south, although snowfall is heavy all over the country in winter. Rainfall, chiefly in the spring, is relatively light. The hottest weather occurs in summer and is particularly severe around Kandahar.

Albania (Republic)

(Shqipëria)

Area: 10,629 square miles.

Population (est. 1950): 1,200,000 (Albanian 99.8%; others, .2%).

Density per square mile: 112.9.

Chairman of Presidium: Omer Nishani.

Premier: Enver Hoxha.

Principal cities (est. 1949): Tirana, 40,000 (capital); Scutari, 30,000 (northern trading center); Koritsa, 28,000 (farming center).

Monetary unit: Lek.

Language: Albanian.

Religions (est.): Moslem, 69%; Orthodox Christian, 21%; Roman Catholic, 10%.

HISTORY. A tiny, backward state approximately the size of Maryland, Albania has acquired considerable importance since World War II because of its close ties with

the Soviet Union and its strategic location at the mouth of the Adriatic. After the fall of the Roman Empire, Albania became part of the Byzantine Empire and was successively invaded by Goths, Serbs and Bulgarians. From 1014 to 1204 it was again under Byzantine rule. An alliance of Albanian chieftains (1444-66) under Skanderbeg failed to halt the advance of the Turks, and the country remained under at least nominal Turkish rule for more than four centuries, until it proclaimed its independence on Nov. 28, 1912.

During World War I Albania was variously occupied by Italian, Greek, French, Serb and Austro-Bulgarian forces. On Aug. 2, 1920, Italy recognized Albanian independence and evacuated the country. Ahmed Zogu, premier in 1922-23, ousted the government of Mgr. Fan Noli in 1924 and became president of a newly constituted republic in 1925. Three years later, after concluding pacts which placed Albania in Italy's sphere of influence, Zogu proclaimed himself King Zog I.

In 1939, Italy occupied the country in a matter of days. During the Greco-Italian war of 1940-41, the Greek armies pushed the Italians back from the Albanian border and occupied a large part of southern Albania. When Germany attacked Greece and Yugoslavia in April, 1941, however, the Greeks withdrew quickly, and the Axis occupation of Albania was complete.

Albania was free of the Axis yoke by the end of 1944, and a leftist provisional government under Colonel General Enver Hoxha was established. That regime was confirmed in power by subsequent elections, and British, Soviet and U. S. recognition. Since then, Albania has collaborated closely with the Soviet Union and supported Moscow and the Cominform in the latter's break with the Tito regime in Yugoslavia. Albania also quarreled frequently with Greece and the western powers. Two main sources of dispute with Greece were the latter's claim to the Albanian territory of Northern Epirus and its charge that Albania was arming anti-government Greek guerrillas.

International tension rose in 1947 when two British destroyers were sunk by mines in the Corfu channel. Britain lodged a sharp protest and referred its complaint to the U. N. Security Council. The Council's decision, favorable to Britain, was vetoed by the U.S.S.R., and Britain carried its case to the International Court of Justice, which ruled on April 9, 1949, that Albania should pay damages to Britain.

GOVERNMENT. Under its 1945 constitution, Albania has a typical soviet government. Supreme power is vested in the popularly elected national assembly, to which the cabinet, headed by the premier, is responsible. The army, estimated at 60,-

000 men, maintains close liaison with the U.S.S.R.

Albania's sovereignty over Saseno, a small but strategic Adriatic island, was confirmed by the Italian peace treaty of 1947.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is nominally compulsory, but illiteracy is high, especially among women. There is a teachers' college at Tirana.

Albanians are called Ghegs and Tosks, according to whether they live north or south of the Shkumbi River. They live in clans or tribes, in a feudal manner. Moslems predominate in most sections.

Albania is still a primitive country where each family tries to provide most of its own needs. Nearly the whole population is engaged in combined farming and stock-raising. Only a small portion of the central part is fit for tilling. Corn is the chief crop. Others are wheat, tobacco, oats, barley, rye, spelt, olives and citrus fruit. Only a few factories are engaged in processing Albania's food products.

Albania's postwar trade has been limited in volume. Exports include wool, hides, fur, dairy products and bitumen.

Railroad mileage was only 26 in 1950, but two lines were said to be under construction. Good highways were developed by the Italians for strategic purposes, and the Russians continued such construction. The principal and only fully equipped port is Durazzo.

Mineral wealth, thought to be considerable, is relatively unexploited. The principal minerals are aluminum and petroleum, which were developed to some extent during the Italian occupation of 1939-44. There are also deposits of lignite, bitumen, asphalt, gypsum, copper and iron.

Forest resources include large stands of oak, walnut, chestnut and elm, and in the high regions, beech, pine and fir.

NATURAL FEATURES; CLIMATE. Albania is a mountainous state, largely over 3,000 ft. above sea level, with a narrow marshy coastal plain crossed by several rivers. A complex, often inaccessible mountainous hinterland encloses small fertile basins, and contains some wide valleys, of which the largest is that of Lake Ohrid in the southeast. The interior mountain plateaus and basins contain the centers of population. With the exception of the Bojana in the northwest, which is the outlet of Lake Scutari (135 sq. mi.) to the Adriatic, there are no navigable rivers.

The climate is typically Mediterranean, with dry, hot summers and moderate winters. Inland temperatures are lower than those on the coast. Winter frosts occur in the southern part of the country.

Arabia

The Arabian peninsula is at the southwest extremity of Asia. Its rich oil deposits and proximity to Palestine gave it special importance after World War II. Once a political unit, today it consists of the kingdoms of Saudi Arabia and Yemen, the British colony of Aden and six British protectorates.

The peninsula, with an area more than three times that of Texas, and an extreme length of 1,400 miles, is generally a plateau sloping gently eastward from a mountain range that averages 5,000 feet in elevation and runs along its entire west side within ten or fifteen miles of the Red Sea. The range reaches a maximum of 12,336 feet in Yemen to the southwest. Arabia has no rivers and no forests and is principally a desert dotted with many oases.

Most of the peninsula, particularly the interior, has a hot desert climate with frequent changes in temperature. The highlands of the Yemen and southwestern Saudi Arabia, however, together with parts of Oman, have a temperate climate. Jidda, on the Red Sea, has an average daily high temperature of 93° during August.

Mohammed united all Arabs in the 7th century A.D., and his followers, led by the caliphs, founded a great empire with its capital at Medina. Later, the caliphate capital was transferred to Damascus and then Baghdad, but Arabia retained its importance because of the holy cities of Mecca and Medina. In the 16th and 17th centuries, the Turks established at least nominal rule over much of Arabia, and in the middle of the 18th century it was divided into separate principalities.

Through agreements with local rulers, the British extended their rule over the southern and eastern coasts in the 19th century. At the same time, the Wahhabs, a religious sect advocating strict adherence to Mohammed's teachings, gained control over most of central and eastern Arabia, and their work was the beginning of the present Saudi Arabia.

Political Divisions of Arabia

Name	Area (sq. mi.)	Population (est. 1950)
Aden colony (British)	80	82,000
Aden protectorate†	112,000	650,000
Bahrain Islands		
(Sultanate)†	213	110,000
Kuwait (Sheikdom)†	9,000	170,000
Oman and Masqat		
(Sultanate)†	65,000	550,000
Qatar (Sheikdom)†	4,000	20,000
Saudi Arabia		
(Kingdom)	597,000	6,000,000
Trucial Coast (Sheikdoms)†	16,000	80,000
Yemen (Kingdom)	31,000	1,600,000

† British protectorate.

Saudi Arabia (Kingdom)

The most important state of the peninsula is almost solely the creation of King Ibn Sa'ud. In 1901, at the age of twenty, he seized the emirate of Riyadh and soon set himself up as the leader of the Arab nationalist movement. During World War I he collaborated with the famous T. E. Lawrence in the successful "Desert revolt" against Turkey. On the collapse of Turkey at the end of the war, he freed the whole peninsula from Turkish rule, and through a series of local military campaigns was able to proclaim himself King of Hejaz and Nejd and dependencies in 1927. His territories became the Kingdom of Saudi Arabia in 1932.

Hejaz and Nejd are still under separate administrations. In Nejd, whose capital is Riyadh, Ibn Sa'ud's rule is absolute. The eldest of his numerous sons, Prince Sa'ud, acts as viceroy in his absence. The constitution of Hejaz, whose capital is Mecca, provides for a cabinet of ministers headed by the King's second son, Prince Faisal, who likewise acts as viceroy in his father's absence. There is a consultative legislative assembly in Mecca and various municipal village and tribal councils whose members are named or approved by the King.

The majority of the inhabitants are Bedouin—nomads following their flocks over the desert. There are a few large towns—Mecca, birthplace of the Prophet (150,000), Medina, site of the tomb of the Prophet (45,000), Jidda, port of Mecca on the Red Sea (40,000), and Riyadh, capital of Nejd (60,000).

In Hejaz, Medina produces dates in the oases, and fruit and honey; otherwise, its products are such desert commodities as camels, horses, sheep, hides, charcoal and wool. The most important commercial activity outside of the oil industry is the annual influx of Moslem pilgrims to Mecca and Medina. The products of Nejd include dates, wheat, barley, hides, wool, fruits, butter, camels and livestock.

Oil is produced by the U. S.-owned Arabian-American Oil Company (Aramco), whose main field is at Dharan near the Persian Gulf coast. Production has skyrocketed since World War II. The company's expenditures and payroll are important invisible exports, and royalties have immensely strengthened the financial position of the kingdom, which receives one-half the company's profits under an agreement announced Jan. 2, 1951. A pipeline running north from Dammam through Jordan and Syria to the Mediterranean port of Sidon, Lebanon, went into operation in 1951. In that year the output totaled 277,962,605 barrels; the crude run at Aramco's Ras Tanura refinery was 58,107,534 barrels.

Numerous public works projects, includ-

ing road, rail and port construction, are being carried out by U. S. engineers, but camel transportation still prevails in most of the country. Air service is provided by TWA, BOAC and the government-owned Saudi Arabian Airlines.

Kuwait (Sheikhdom)

Kuwait, on the northwestern shore of the Persian Gulf, is an independent state ruled by Sheikh Abdullah as-Salim as-Subah. British protection, first exercised in 1898, has several times prevented it from being absorbed by Saudi Arabia. The territory surrounding Al Kuwait, its port, is largely desert; its trade consists of exchanging Arab goods from the interior for textiles, rice, sugar and other necessities. Kuwait's petroleum reserves, estimated at 9 billion barrels, are under concession to the Kuwait Oil Co., which under an agreement announced Dec. 3, 1951, pays one-half its profits to the Sheikh. Production, which began only in 1945, totaled 204,909,662 barrels in 1951. Production is concentrated at the Burgan field, from which petroleum is piped to the new port of Ahmadi for shipment.

Oman and Masqat (Sultanate)

Occupying the mountainous southeastern part of the peninsula, Oman is nominally an independent state under the rule of Sultan Sayyid Sa'id bin Talmur. It has been under British protection since the 19th century. The state is best known for its date cultivation, and its riding camels are considered the best in the world. Trade is mainly to and from India. The capital, Masqat (population 4,200), commands the entrance to the Persian Gulf.

Qatar (Sheikhdom)

Qatar occupies the whole of the Qatar peninsula in the Persian Gulf. It is ruled, under British protection, by Sheikh Abdullah ibn Jasim eth Thani. The whole area is claimed by Saudi Arabia. Oil deposits are being exploited by a subsidiary of the Iraq Petroleum Co.; output in 1951 was 2,332,213 long tons (about 16,000,000 barrels).

Trucial Coast (Sheikhdoms)

This area, extending along part of the Gulf of Oman and the southern coast of the Persian Gulf, is ruled by 7 semi-independent sheiks. Treaties signed with Britain in 1853 and 1892 provided that the sheiks should not cede or sell any part of their land to any other power.

Yemen (Kingdom)

Yemen is an independent state occupying the southwestern extremity of the peninsula. Its ruler is Imam Ahmad, who succeeded to the throne, March, 1948, after insurgents murdered his father, King Yahya.

Its sovereign status was confirmed by the Treaty of San'a with Britain and India

(Feb. 11, 1934) and the Treaty of Taif concluded with Saudi Arabia at the cessation of hostilities between the two states on May 13, 1934. The people are permanently settled and are for the most part engaged in agriculture, fishing and trade. Chief products are Mocha coffee, and sheep and goat skins. Much of the trade goes through the port of Aden. The capital and principal town is San'a (population about 25,000).

(For Aden and Bahrain Islands, see British Commonwealth: Asia)

Argentina (Republic)

(República Argentina)

Area: 1,079,965 square miles.

Population (est. June 30, 1950): 17,097,889 (approximately 97% of European descent, chiefly Spanish and Italian; 3% Indian and other).

Density per square mile: 15.8.

President: Juan D. Perón.

Principal cities (census 1947): Buenos Aires, 3,000,371 (capital and chief port); Rosario, 464,688 (flour milling); Córdoba, 351,644 (northwest farming center); Avellaneda, 279,572 (industrial suburb of Buenos Aires); Lanús, 272,760 (suburb of Buenos Aires); La Plata, 271,738 (seaport; meat packing).

Monetary unit: Peso.

Languages: Spanish (official), Italian.

Religion: Roman Catholic (state-supported).

HISTORY. Discovered in 1516 by Juan Díaz de Solís, Argentina developed slowly under Spanish colonial rule. Buenos Aires was settled permanently in 1580 and became a prosperous city; the cattle industry of the Argentine pampas was thriving as early as 1600.

Invading British forces were expelled in 1806-07, and when Napoleon conquered Spain, the Argentinians set up their own government in the name of the Spanish king in 1810. On July 9, 1816, independence was formally declared. Internal dissension, particularly between Buenos Aires and the provinces, was put down under the dictator Juan Manuel de Rosas, who brought about unification from 1829 to 1852. Rosas was overthrown by Justo José de Urquiza, who became the first president under the 1853 constitution, modeled after that of the U. S.

Argentina made great material progress under Presidents Sarmiento (1868-74), Avellaneda (1874-80) and Roca (1880-86). The secret ballot was introduced in 1910 by President Roque Sáenz Peña.

President Hipólito Irigoyen (1916-22) refused to abandon Argentinian neutrality in World War I. Re-elected in 1928, Irigoyen, a radical, was ousted two years later by a conservative revolution led by General José Uriburu. The latter's successor, General Agustín Justo (1932-38) followed

a moderate policy and undertook a large public works program. Under the leadership of a former radical, Roberto M. Ortiz, Argentina proclaimed neutrality at the outbreak of World War II, but in general co-operated in hemispheric defense programs.

Ortiz resigned because of illness in June, 1940, and was succeeded by Vice President Ramón Castillo, a conservative, whose regime was toppled in June, 1943, by a revolt led by General Pedro P. Ramírez. The latter abolished all political parties and broke relations with the Axis on Jan. 26, 1944, after disclosures of German spy activity in Argentina. A clique of army officers, apparently fearing that this would lead to war with Germany, replaced Ramírez on Feb. 24, 1944, with General Edelmiro Farrell.

In the closing months of World War II, Farrell's regime declared war on the Axis (March 27, 1945) and signed the Act of Chapultepec the following April 4. Diplomatic recognition and admission to the U. N. followed. Juan D. Perón, then an army colonel, emerged as strongman and won the 1946 presidential elections. Congress became completely controlled by Perón supporters. Perón was re-elected Nov. 11, 1951, in an election in which the opposition was denied freedom of speech, press and assembly.

GOVERNMENT. Argentina is a federal union of sixteen provinces and eight territories. Under the new constitution promulgated in 1949, a president and vice president are elected every six years by direct popular vote. The president appoints his cabinet. The vice president presides over the Senate but has no other powers. Both executives are eligible for re-election. The National Congress has two houses—a 34-member Senate which is popularly elected for six-year terms, and a Chamber of Deputies (one for each 100,000 electors) popularly elected for six years, one-half the membership of each house being renewed every three years.

Each province has its own constitution, elected governor, legislature and judiciary, but the president may in a crisis take over the local government.

The president, with Senate approval, appoints for life-terms the judges of the federal supreme court, five courts of appeal, and district courts (at least one in each province).

DEFENSE. Under legislation enacted Nov. 29, 1946, all men and women 12 to 50 are subject to military service at the president's discretion. Service from 20 to 22 is compulsory. Active army strength in 1950 was estimated at 100,000; a complete modernization program was under way.

The air force has about 150 combat planes. The navy in 1951 totaled approxi-

mately 110,000 tons, including two modernized battleships, five light cruisers and 11 fleet destroyers. The budgetary allotment for defense in 1951 was 25 per cent.

EDUCATION. Argentina's estimated illiteracy rate of 7-10 per cent is the lowest in all Latin America. Education is free, secular and compulsory between six and fourteen. In 1951 there were 15,874 primary schools with 2,446,138 pupils, 3,264 public and private secondary, normal and special schools with 521,132 students and 6 national universities with 90,201 students.

AGRICULTURE. A farming and stock-raising nation, Argentina devotes 41 per cent of its area to pasture and 11 per cent to cultivation. More than 70 per cent of the cultivated land is planted in cereals, and approximately 20 per cent is in alfalfa for stock feed. Cotton, sugar cane and fruits are important, and Argentina is the world's largest producer of yerba maté (Paraguay tea), the national beverage. The 1951 wine production was about 290,000,-000 gallons.

Estimated crop production for 1951, in metric tons, was as follows: wheat, 5,796,-000; oats, 733,000; barley, 763,000; maize, 2,670,000; linseed, 559,000; sunflower seed, 1,021,000.

Cattle raising predominates on the pampas, especially in Buenos Aires province. Sheep raising is more important in Patagonia. In 1947 there were 41,268,470 cattle, 50,856,556 sheep, 2,981,406 hogs and 7,237,-663 horses. Wool production in 1951 was 220,000 short tons.

MANUFACTURING. Industrial expansion was accelerated during World War II by the shortage of imports, but industry is still closely allied to agriculture. The principal industry is meat refrigeration, followed by flour milling, textiles, sugar refining, dairy products, quebracho extraction and wine. In 1941 there were 57,940 industrial establishments (101,884 in 1947); products were valued at 6,337,000,000 pesos (7,800,000,000 in 1943). The number of industrial workers was 918,000 in June 1950. **TRADE.** Argentina's trade position, favorable in the immediate postwar period, deteriorated as dollar exchange became scarcer. Trade statistics are as follows (in millions of pesos):

	1948	1949	1950
Exports	5,541.8	3,718.9	5,427.3
Imports	6,189.7	4,641.7	4,821.1

Leading exports in 1950 were cereals and linseed (21.4%), wool (16.1%), hides (12.7%) and meat (10.9%). Imports included machinery and vehicles (20.0%), iron and steel (15.5%) and fuel (12.3%). Exports in that year went principally to the U. S. (20%), Britain (18%) and Brazil (8%). Principal suppliers were the U. S. (17%), France (14%) and Britain (11%).

COMMUNICATIONS. According to *Lloyd's Register*, the merchant fleet on June 30, 1951, consisted of 363 steamers and motorships (100 tons and over) aggregating 979,-210 gross tons. Chief Argentine ports are Buenos Aires, second only to New York in the western hemisphere, and La Plata, both on the Plata estuary; and Rosario, a port on the Paraná River.

Railway mileage is about 27,000, nearly all of which radiates outward from Buenos Aires. With the purchase in 1947-48 of the British- and French-owned railways, the system is now government-owned. Highway mileage is upwards of 300,000, largely unimproved. Telephones in Jan. 1951 totaled 798,000; broadcasting stations, 58; radio sets, 2,200,000. The air-transportation system is government-owned; domestic air routes extend as far south as Tierra del Fuego. Direct international connections with the rest of the world are maintained by numerous international airlines.

FINANCE. The 1952 budget, as passed by Congress, totaled 13,073,900,000 pesos, distributed as follows: national administration, 4,844,000,000 pesos (covered by general revenue with surplus of 100,000 pesos); public works, 1,059,600,000 pesos (to be covered by borrowing, except for 100,000 pesos); special accounts, 1,182,400,-000 pesos (self-balancing); autonomous agencies, 5,987,900,000 pesos (self-balancing). In addition, 1,300,000,000 pesos were allotted for the five-year plan. The national debt was 18,158,400,000 pesos on Dec. 31, 1950.

TOPOGRAPHY. Second in South America to Brazil in size and population, Argentina is about 2,070 miles long and 860 miles wide at the maximum. In general, the country is a plain, rising westward from the Atlantic to the Chilean border and the towering Andes peaks, including Aconcagua, 22,835 feet, the highest peak in the world outside Asia. The northern area of the Argentine plain is the swampy and partly wooded Gran Chaco. South of that to the Río Negro are the rolling, fertile pampas, rich for agriculture and grazing, and supporting most of Argentina's population. Next southward is Patagonia, a region of cool, arid steppes with some wooded and fertile sections. The eastern part of Tierra del Fuego, the island southern tip of South America, belongs to Argentina.

CLIMATE. Except for the northern Gran Chaco, which has mild winters and torrid summers, Argentina lies in the south temperate zone. The pampas region has an average temperature of 60°, and freezing is rare. Temperature extremes increase progressively southward. All over Argentina, January is the warmest month and June and July are coolest. At Buenos Aires,

the mean annual temperature in January-February is about 73°; in June-July, 50°. The heaviest rainfall, over sixty inches a year, hits the Gran Chaco, while on the pampas it ranges from twenty inches in the west to forty in the northeast.

RIVERS. The three great rivers forming the Plata system—the Paraná, Paraguay and Uruguay—are important commercial arteries in northern Argentina. Rosario and Santa Fé, 260 and 360 miles respectively above Buenos Aires on the Paraná, are accessible to ocean vessels. Many other river ports lie along the three streams' total navigable length of 1,997 miles.

MINERALS. Argentina must import most of nearly every mineral it uses. Oil is produced in Patagonia (1951: 25,150,000 barrels), and there is small mining of tungsten, lead, gold, zinc, tin, silver and beryllium. The government announced discovery of uranium deposits in Feb., 1947. Coal and coke imports in 1950 amounted to 1,447,838 metric tons.

FORESTS. The Gran Chaco area is the world's chief source of quebracho extract. Total exports of this tanning agent obtained from quebracho logs in 1950 were 247,939 metric tons, part of which was re-exported from Paraguay. Other forest products—hardwoods, dyewoods, lignum vitae, red quebracho, medicinal gums and other tannins—are consumed locally for the most part.

Austria (Republic)

(Österreich)

Area: 32,388 square miles.

Population (census June 1, 1951): 6,918,959 (practically all Austrian).

Density per square mile: 213.6.

Allied Council: L. E. Thompson, Jr.

(U. S. A.); Lt. Gen. V. P. Sviridov (U.S.S.R.); Sir Harold A. Caccia (United Kingdom); Jean Payart (France).

President: Dr. Theodor Koerner.

Chancellor: Leopold Figl.

Principal cities (census 1951): Vienna, 1,760,784 (capital, industrial center); Graz, 226,271 (industrial center); Linz, 185,177 (Danube port); Salzburg, 100,096 (tourist center).

Monetary unit: Schilling.

Language: German.

Religions (est.): Roman Catholic, 93.68%; Protestant, 3.11%; Jewish, 2.93%; unknown, .28%.

HISTORY. Austria, lying at the western edge of the "iron curtain" in central Europe, continued to be occupied by foreign troops after World War II.

The history of Austria before World War I was largely that of the Austro-Hungarian Empire and the Hapsburg dynasty. Its origin was in the province of Ostmark, separated from Bavaria and given to Leopold of Babenberg (A.D. 976) by the Holy

Roman Emperor, Otto II. It was ruled by the Babenbergs until 1246, and later passed to Ottakar of Bohemia, who lost it to Rudolf of Hapsburg (1276). In 1437, the three kingdoms of Austria, Hungary and Bohemia were united under the rule of Albert V. For three centuries thereafter, despite almost constant warfare, the states remained for the most part under a single crown. The Hapsburgs gradually added to their possessions, until Charles V, during the 16th century, ruled a vast part of Europe. Emperor Francis I laid down the Holy Roman crown in 1806 at the height of the Napoleonic Wars, in which Austria with her allies was finally victorious. Influence in Germany was lost through defeat by Prussia in the Seven Weeks' War (1866). In 1867, the Dual Monarchy of Austria and Hungary was established, united in the person of the sovereign, Franz Josef I, who ruled until 1916.

Following the defeat of the Central Powers in World War I, the republic of Austria was established in Nov., 1918. It was confined to its present borders by the Treaties of St. Germain (1919) and Trianon (1920). The years immediately following the war were a period of privation, dissension and riots, with Austrian currency becoming worthless and the nation bankrupt. Establishment of a semi-dictatorship by Engelbert Dollfuss, who had become Chancellor in 1932, was followed by an unsuccessful Socialist revolt (Feb., 1934) and an attempted Nazi coup d'état which failed, although Dollfuss was killed. He was succeeded by Kurt von Schuschnigg, whose futile efforts to maintain Austria's independence ended (March 12, 1938) with the bloodless occupation of Austria by German troops. Hitler proclaimed the *Anschluss* of Germany and Austria the next day.

Following the liberation of Vienna by the Red Army (April 13, 1945), Dr. Karl Renner, veteran Socialist, formed a provisional government. Elections held Nov. 25, 1945, resulted in victory for the People's Party, whose leader, Leopold Figl, became chancellor. Dr. Renner was elected president of the Second Austrian Republic (Dec. 20, 1945). He died Dec. 31, 1950; Dr. Theodor Koerner, also a Socialist, was elected President May 27, 1951.

In the years following World War II, there seemed little prospect that Austria would soon regain her independence, since the Big Four could not agree on fundamental issues of reparations and territorial settlement.

ALLIED MILITARY GOVERNMENT. Since World War II, Austria within its 1937 frontiers has been divided into four national zones, as is the city of Vienna. The Allied Council and the inter-Allied governing authority of Vienna consist of the ranking

officers of the four participating nations—the U. S., Britain, France and the U.S.S.R. Under an agreement signed by the four powers June 28, 1946, the Council's functions are supervisory rather than administrative.

NATIONAL GOVERNMENT. Austria is a federal republic comprised of nine provinces (including Vienna), each of which has its own elected assembly for the control of regional affairs. The federal parliament consists of two houses—the *Bundesrat* whose 50 members are chosen by the provincial assemblies and the *Nationalrat* whose 165 members are chosen by national election. The president of the republic is elected by national popular vote for a term of six years. The government is administered by the chancellor and his cabinet. Party standing in the *Nationalrat* after the elections of Oct. 9, 1949, was as follows in 1952: People's Party 74, Socialist 67, Independent 15, Communist 4, others 5.

SOCIAL AND ECONOMIC CONDITIONS. In 1949-50, Austria had 5,073 primary schools with 846,846 pupils, 259 secondary, technical and teachers' training schools with 72,101 pupils, and 4 universities with 17,029 students.

Agriculture employs more than one-third of the population but the country is heavily dependent on imported foodstuffs. About 90 per cent of the total area is classified as productive; of this area, about 40 per cent is intensively cultivated as plowland, meadowland, gardens and vineyards. The amount under plow is relatively small, and mixed farming predominates. Rye and wheat are the leading cereals with 1951 production amounting to 334,400 and 342,800 metric tons, respectively, followed by oats (298,200 tons) and barley (245,800 tons). Potato production was 2,149,300 tons. Other crops include sugar beets, flax, fruits and tobacco.

Stock raising and dairy farming both in the Alpine pastures and the lowlands of the east are of importance. In 1951 there were 2,283,859 cattle, 2,448,262 hogs and 331,847 sheep.

Austria is primarily an industrial country, having, in 1948, 328,729 industrial establishments with 2,046,000 workers (1951). The metallurgical, engineering, textile and wood industries are most important. Styria is responsible for almost all the iron and steel production, which included in 1951 1,027,790 metric tons of steel and 1,049,438 tons of pig iron.

Legislation providing for the nationalization of 70 firms, comprising a substantial portion of Austrian basic industry, was enacted late in 1946. Most of the industrially important regions are in the Soviet zone.

The constantly unfavorable prewar trade balance was offset in part by international loans and in part by invisible exports, such as tourist expenditures, income from foreign investments and transit trade.

Trade statistics are as follows (in millions of schillings):

	1949	1950	1951
Exports	3,229	6,513	9,635
Imports:			
commercial	4,477	7,089	8,541
relief and ERP	1,867	2,110	2,743

Principal sources of imports in 1951 were the U. S. (22%), western Germany (17%), Britain (12%) and France (5.4%). Chief customers were western Germany (14%), Italy (11%), Britain (8.8%) and Switzerland (6.1%). The leading exports were timber (17%), paper and pulp (10%) metal goods (5.8%) and pig iron (4.4%).

The construction of railways and roads has been hampered by physical difficulties. There were 3,761 miles of railway in 1951, partly electrified. Water traffic is restricted for the most part to the Danube River. The major river ports are Linz and, especially, Vienna, which is also an important rail, road and air center.

Government revenue was estimated at 18,669,000,000 schillings in 1952 and expenditure at 19,700,000,000 schillings.

NATURAL FEATURES AND RESOURCES;

CLIMATE. Austria covers an area about equal to that of Scotland and includes much of the mountainous territory of the eastern Alps (about 92.3 per cent of the country is classified as mountainous). From the Rhine Valley, Austria's western frontier, these ranges cross the country from west to east, merging on the north and northeast into the Danube Valley and the open Vienna basin. On the east and southeast, the ranges merge into the forested foothills overlooking the undulating countryland of western Hungary. The country contains many snowfields, glaciers and snow-capped peaks. The principal river, the Danube, enters in the northwest and crosses northern Austria.

Austria possesses valuable mineral resources. In Styria lies one of the largest European deposits of iron ore. Copper is mined in Salzburg, Tyrol and lower Austria, and lead and zinc in Carinthia. Other minerals include bauxite, graphite, sulfur and manganese. Fuel resources comprise small coal deposits in lower Austria and large quantities of lignite, found everywhere except in Salzburg. Large supplies of coal and coke must be imported, but extensive water power resources are available for exploitation. Petroleum fields in the Zistersdorf and Mühligberg areas, both in the Soviet zone, produced an estimated 14,750,000 barrels in 1951. Production of lignite in 1951 was 4,988,741 metric tons.

Variety is the keynote of Austria's climate. The mean annual temperature in the north ranges between 45° and 48°, and in no month does the average exceed 68°. Most of the rainfall occurs during summer. In the Tyrol, mild winters and warm summers (with temperatures often higher than 68°) are customary; maximum precipitation is in spring and summer. The mean annual temperature of Vienna is 49.4°, and the range about 40°.

Belgium (Kingdom)

(Royaume de Belgique— Koninkrijk België)

Area: 11,783 square miles.*
Population (est. Dec. 31, 1950): 8,653,653 (Wallon, Flemish).
Density per square mile: 734.4.
Sovereign: Baudouin I.
Premier: Jean Van Houtte.
Principal cities (est. 1948, including suburbs): Brussels (Bruxelles), 1,296,687 (capital); Antwerp (Anvers), 794,280 (port and commercial center); Liège, 573,176 (iron and steel); Charleroi, 445,229 (coal); Ghent (Gand), 442,792 (textiles).
Monetary unit: Belgian franc.
Languages: French, Flemish.
Religion: Predominantly Roman Catholic.

* Including small areas taken over from Germany in 1949.

HISTORY. In 1914 and again in 1940, Belgium was crushed by German armies because its position in the Low Country area made it a highway on the invasion route to France. Highly industrial, a bit larger than Maryland and second most densely populated major European nation, Belgium emerged from World War II in fair economic condition but, politically, the country suffered crisis after crisis in the struggle between conservatives and elements of the left, especially over the return of King Leopold III to the throne. Leopold returned to Belgium on July 22, 1950, but violent Socialist-led rioting forced him to agree to turn over his powers to his son, Baudouin. He formally abdicated July 16, 1951, and his son became king as Baudouin I.

Perhaps the earliest mention of the Belgians in history was in 57-50 B.C., when they were conquered by Julius Caesar. In the Middle Ages the Belgian towns became wealthy and virtually autonomous as great textile centers. Belgium became part of Burgundy in 1385 and, later, part of the Spanish domains of Charles V. By the Treaty of Utrecht, in 1713, Belgium went to Austria, though retaining its autonomy, and from 1792 to 1815 it held a similar status under France. United with the Kingdom of the Netherlands by the Congress of Vienna in 1815, the Belgians revolted and proclaimed independence on Oct. 4, 1830, choosing as their sovereign

Leopold of Saxe-Coburg. Taking the title of King Leopold I, he ruled from 1831 to 1865.

Belgium progressed peaceably under Leopold I and his son, Leopold II, who reigned from 1865 to 1909, and was succeeded by his nephew, Albert I (1909-34).

Despite heroic Belgian resistance under the personal leadership of Albert, the country was overrun by the Germans in 1914 and occupied throughout World War I. The treaty of 1919 gave Belgium the regions of Moresnet, Eupen and Malmédy, and a mandate over Ruanda-Urundi in Africa.

As World War II approached, Belgium strove to protect its legal neutrality; at the same time the nation rearmed rapidly and built a strong series of fortifications, especially along the Albert Canal. But these defenses were no great obstacle to the Germans, who invaded the country for the second time in a generation on May 10, 1940.

King Leopold III, who had succeeded his father upon the latter's death in a mountain-climbing accident in 1934, ordered the Belgians to surrender to the Nazis and was taken prisoner on May 28, 1940—eighteen days after the first German attack. The cabinet of Hubert Pierlot escaped from the country and set up a government-in-exile in London. When that government returned to Belgium on Sept. 7, 1944, King Leopold's brother, Prince Charles, was elected regent (Leopold was still a prisoner). Pierlot, a Catholic, became head of a coalition government. He was succeeded in Feb., 1945, by Achille van Acker (Soc.).

The Christian Socialists (Catholics) won a plurality in the elections of Feb. 17, 1946. Their pro-Leopold stand prevented them from taking office, however, and the country was ruled by the Liberal-Socialist-Communist cabinets of Van Acker (Mar. 31, 1946) and Camille Huysmans (Aug. 2, 1946) until March, 1947, when Socialist Paul-Henri Spaak formed a Socialist-Christian Socialist coalition cabinet. He was succeeded by Gaston Eyskens, a Christian Socialist, who succeeded in forming a Christian Socialist-Liberal cabinet on Aug. 10, 1949, to end the political stalemate which followed the elections of June 26, 1949. He and his cabinet resigned on Mar. 19, 1950, following a national referendum on Mar. 12 in which 57.7 per cent of the electorate voted for Leopold's return. In elections held June 4, 1950, the Christian Socialists won control of the Chamber of Deputies; succeeding Christian Socialist cabinets were headed by Jean Duvieusart (June 8), Joseph Pholien (Aug. 15) and Jean Van Houtte (Jan. 15, 1952).

On March 17, 1948, Belgium signed a 50-year defense treaty with Britain, France, Luxemburg and the Netherlands, and in

April, 1949, the nation joined the North Atlantic alliance.

Baudouin I was born Sept. 7, 1930, the elder son of Leopold III and Queen Astrid, who was killed in an automobile accident in 1935. The King's brother and the heir presumptive is Prince Albert, born June 6, 1934; his sister is Princess Josephine, born Oct. 11, 1927.

GOVERNMENT. Under the 1831 constitution, Belgium is a constitutional, hereditary monarchy. The king's authority is delegated to the ministers whom he appoints and dismisses to conform with the parliamentary majority. The ministers who constitute the cabinet must have the confidence of parliament, which consists of a 212-member chamber of deputies popularly elected, and a senate of varying membership, elected both directly and indirectly. All members serve for four years unless one or both houses are dissolved by the king, in which case new elections must be held in forty days. Belgium's nine provinces and 2,670 communes have crown-appointed officials but retain considerable autonomy with locally-elected councils.

The election of June 4, 1950, returned 108 Christian Socialists (as against 105 in the June, 1949, election), 77 Socialists (66), 20 Liberals (29) and 7 Communists (12) to the Chamber of Deputies.

The authorized strength of the army in 1951 was 150,000. The air force has about 350 combat planes. The navy, abolished in 1928, was reformed after World War II and in 1951 had 2 sloops, 1 frigate and minor craft.

EDUCATION. Education, free and universal for children from six to fourteen, is under state control in three divisions: primary, intermediate and higher. Primary schools (Dec. 1949), numbered 8,714 with 768,283 pupils; state secondary schools, 254 with 90,501 pupils; and normal schools, 158 with 11,700 students. There are four universities: official, Ghent and Liège; unofficial (private), Brussels and Louvain with a total of 16,723 students in 1949. There are also private schools, many under religious auspices.

AGRICULTURE. About 60 per cent of the total area is under cultivation, and one-half the farmed area is devoted to forage crops. Principal crops in 1951, in metric tons, were wheat, 496,000; oats, 438,000; barley, 270,000; rye, 195,000; and sugar beets, 1,800,000. Other crops: potatoes, fodder beets, flax and fruit. The pastoral industry, especially dairy farming, flourishes. On Jan. 1, 1951, Belgium had 2,020,287 cattle, 1,234,263 hogs and 115,856 sheep.

MANUFACTURING. Belgium is one of the most highly industrialized nations in Europe, largely because of vast, readily accessible coal reserves. Industry has not

advanced, however, at the expense of agriculture; the Belgian economy is based on both. In Jan., 1948, there were 248,128 industrial establishments with 1,000,010 workers.

The metallurgical, textile and building industries are important. Associated with iron and steel is a considerable engineering industry, shipbuilding in Antwerp, and machinery and railway stock in Brussels. The centuries-old textile industry produces linen (Courtrai); cotton (the southeast); and synthetic fibers. Antwerp, using the output of mines in the Congo and Angola, rivals Amsterdam in diamond cutting.

Foreign trade is especially vital to the Belgian economy. The Belgian-Dutch-Luxembourg customs union (Benelux), established on Jan. 1, 1948, is one of the five great trading areas in the world. Trade of Belgium and Luxembourg (in billions of francs) is as follows:

	1949	1950	1951*
Exports	79.7	82.6	132.4
Imports	81.1	97.1	126.4

* Provisional.

Chief customers in 1951 were the Netherlands (18%), Britain (10%), France (9%) and western Germany and the U. S. (each 6%). Leading sources of imports were the U. S. (18%), the Netherlands (11%), France (10%) and western Germany (9%). Chief exports were iron and steel and products (21%), thread and fabric (13%), nonferrous metals and products (10%) and machinery and vehicles (9%).

COMMUNICATIONS. Inland transportation facilities are highly developed. Railroad mileage is 3,090. Navigable waterways total 998 mi., including the well-developed canal system. Before World War II, Belgium had the second largest river fleet on the Rhine. Highway mileage in 1949 totaled 6,648, mostly improved. The merchant fleet on June 30, 1951, totaled 203 ships (100 tons and over) aggregating 493,432 gross tons, according to *Lloyd's Register*. Sabena, the government-controlled airline, flew 8,502,056 miles in 1950 and carried 173,974 passengers.

FINANCE. Recent data are as follows (in billions of francs):

	1950	1951*	1952†
Revenue	65.9	67.5	72.2
Expenditure	79.5	83.6	91.8

* Revised budget estimate. † Initial budget estimate.

The national debt, consolidated and floating, totaled 256,581,630,313 fr. on Dec. 31, 1951.

NATURAL FEATURES AND RESOURCES; CLIMATE. The northern third of Belgium is a plain extending eastward from the coast of the North Sea. North of the Sambre-Meuse Rivers is a low plateau, varying from 250 to more than 600 feet in height,

and to the south lies the Ardennes plateau, rising to a maximum of about 2,300 feet. The shallowness of the North Sea off Belgium precludes the development of good harbors; some of the port advantages of Antwerp, on the Schelde River, are offset by the fact that the approaches to it are through Dutch territory.

The principal mineral is coal; production in 1951 was 29,666,789 metric tons. The Ardennes coalfield, now nearly exhausted, extends southward into France. The Campine field, comparatively new, lies in the northeast. Iron ore, lead and zinc are mined, principally in the Ardennes. Belgian mining, highly developed, normally employs about 200,000 people.

Forests cover about 20 per cent of Belgium, but their products are relatively unimportant. Fishing is vital in the economy. The 1951 catch was about 51,500 metric tons valued at 482,758,000 fr.

The climate is temperate. Ostend, on the sea, has an average annual temperature of 49° and annual rainfall of 27.5 inches, about like that of Chicago. Baraque Michel, in the Ardennes heights, has an average temperature of 43°, rainfall of 59.5 inches, and considerable snow in the winter.

Belgian Colonial Empire

Country	Area (sq. mi.)	Native pop. (est. 1951)
Belgian Congo (colony)	904,974	11,331,793
Ruanda-Urundi (U. N. trust territory)	20,120	3,794,000

BELGIAN CONGO—Status: Colony.

Capital: Léopoldville (population 1951: 208,662; Europeans, 10,993).

Governor General: Eugène Jungers.

Foreign trade (1951)*: exports, 20,115,-743,000 fr.; imports, 15,419,631,000 fr.; chief exports, copper (24%), cotton, palm oil.

Agricultural exports (1951, in metric tons)*: cotton, 41,157; coffee, 35,395.

Mineral production (1950, in metric tons): copper (smelter), 175,920; tin (ingots), 3,290; cassiterite, 15,205; diamonds (mainly industrial), 9,604,128 carats; gold (refined), 331,820 oz.; uranium.

Forest exports (1951, in metric tons)*: palm oil, 132,016; palm kernels, 87,513; gum copal, 14,227; rubber, 12,167.

* Including Ruanda-Urundi.

The mineral-rich Belgian Congo, in central Africa, with a narrow outlet to the Atlantic through the northwestern tip of Portuguese Angola, was acquired Nov. 15, 1908, by the Belgian state from the Belgian king, Leopold II. The latter had backed exploration of the area by the English explorer, H. M. Stanley, and in 1885 had been recognized by the great powers as personal sovereign and proprietor of the Congo Free State, as it was then called. The area is now administered by a governor general responsible to the cabinet

minister for the colonies. The governor general has unrestricted executive and legislative powers, and the colony has no representative institutions of its own. During World War II it furnished vital war materials to the Allies. The European population on Jan. 1, 1951, was 57,930, of whom 44,028 were Belgians.

RUANDA-URUNDI—Status: U. N. trust territory, united administratively with the Belgian Congo.

Capital: Usumbura.

Governor General: Eugène Jungers.

Principal products: tin, coffee, gold, cotton, hides.

Ruanda-Urundi, in east Africa, was assigned to Belgium as a mandate by the League of Nations at the end of World War I, before which it was a portion of German East Africa. It is administered under the direction of the governor general of the Belgian Congo by a vice governor general. The area, placed under U. N. trusteeship in Dec., 1946, is largely mountainous, with livestock grazing the principal native activity.

Bhutan (Kingdom)

Area: approx. 18,000 square miles.

Population (est.): 300,000 (mostly Bhotiya).

Density per square mile: 16.7.

Ruler: Maharaja Sir Jig-me Wang-chuk.

Capital: Punakha.

Monetary unit: Indian rupee.

Language: Tibetan dialect.

Religion: Buddhism.

HISTORY. Bhutan is a semi-independent state lying on the southeast slope of the Himalayas, bordered on the north and east by Tibet and on the south and west by the Republic of India. The area is said to have been invaded and settled by Tibetan troops in the 9th century A.D. After almost a century of conflict between the Bhutanese and the British in India, British troops invaded the country in 1865 and negotiated an agreement under which Britain undertook to pay an annual allowance to Bhutan on condition of good behavior. A treaty signed with India in Aug., 1949, increased this subsidy and placed Bhutan's foreign affairs under Indian control.

Until 1907 Bhutan's government was under the dual control of the clergy and laity, but the country is now ruled by a hereditary maharaja.

The dominant people are the Bhotiyas, who are of Tibetan origin, speak a Tibetan dialect, and profess the same form of Buddhism as is prevalent in Tibet.

ECONOMIC CONDITIONS. The chief crops are rice, corn and millet; the fields, laid out on hillside terraces, are watered by an ingenious system of irrigation. Bhutan is famous for its small though sturdy moun-

tain ponies. The chief industries are metal work, cloth weaving and fine basket and mat work. Trade is insignificant, and much of it is conducted by barter.

NATURAL FEATURES. The whole of Bhutan presents a succession of lofty and rugged mountains running generally from north to south and separated by deep valleys. Mountains in the north reach a height of 24,000 feet. The climate varies according to the topography. There are valuable forest stands ranging from semi-tropical woods on the lowest slopes to coniferous forests on the more temperate slopes to the north.

Bolivia (Republic) (República Boliviana)

Area: 416,040 square miles.

Population (census 1950): 3,019,031 (1944: 52% Indian, 28% Mestizo, 13% white, .2% Negro, 6.8% unspecified).

Density per square mile: 7.3.

President: Victor Paz Estenssoro.

Principal cities (est. 1948): La Paz, 319,600 (de facto capital); Cochabamba, 83,000 (commercial center); Oruro, 50,000 (tin mines); Potosí, 47,000 (mining); Sucre, 35,000 (legal capital).

Monetary unit: Boliviano.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. Famous since Spanish colonial days for its mineral wealth, modern Bolivia was once a part of the ancient Incan Empire. After the Spaniards had defeated the Incas during the first part of the 16th century, Bolivia was subjected to the Spanish Viceroyalty of Peru, and its predominantly Indian population was reduced to slavery. During the successive South American revolts against Spain in the early 19th century, Upper Peru (as Bolivia was then called) was a vast battlefield contested by Spanish and patriot troops. The country finally won its independence in 1825; the new republic was named after Simón Bolívar, South America's famed liberator.

Bolivia's political history since independence has been extremely stormy. Since 1825 it has had more than sixty revolutions, seventy presidents and eleven constitutions. No elected president has ever served out his term.

Harassed by internal strife, Bolivia lost great slices of territory to three neighbor nations. Several thousand square miles and its outlet to the Pacific were taken by Chile after a disastrous war in 1879-83. In 1903 a piece of Bolivia's Acre province, rich in rubber, was ceded to Brazil. And in 1938, after a war with Paraguay, Bolivia gave up claim to nearly 100,000 square miles of the Gran Chaco.

Recent years have been typical of Bolivia's turbulent political history, with sev-

eral illegal seizures of power culminating in a leftist revolution on July 21, 1946, which overthrew the rightist regime of Lt. Col. Gualberto Villarroel, who in Dec., 1943, had ousted the legally elected president, Gen. Enrique Peñaranda. Elections held Jan. 5, 1947, were indecisive; Congress endorsed the slight plurality of Dr. Enrique Hertzog, who took office on March 10, 1947. Continued political and labor unrest and martial law marked Hertzog's administration and that of Mamerto Urriolagoitia, who became president when Hertzog resigned because of illness in Oct., 1949. Elections held May 6, 1951, were again indecisive, although an exiled leftist, Victor Paz Estenssoro, obtained a near majority. A military junta which took over on May 16, 1951, was overthrown on April 11, 1952, and Paz Estenssoro became president on April 16.

GOVERNMENT. Under the 1938 constitution, Bolivia is a republic, electing by popular vote a president every four years, a 27-member Senate every six years, and a 111-member Chamber of Deputies every four years. The president appoints the 10 members of his cabinet. The Indian majority is virtually disfranchised, and less than 3 per cent of the population voted in the 1947 presidential elections.

Military service is compulsory, with a two-year training period beginning at nineteen and service on reserve until fifty. The army is fixed by law at 15,000, and there are about 12,000 federal police. The air force is being re-organized and trained by U. S. officers.

SOCIAL AND ECONOMIC CONDITIONS. Bolivia has an illiteracy rate estimated in 1948 at over 80 per cent, highest in Latin America. A contributing factor is the high proportion of pure Indian population. In 1950, enrollment at 1,562 primary schools was 141,831, and at 104 secondary schools, 18,029. There are five universities and several normal schools and educational centers for Indians. The government is reorganizing the curriculum for rural schools.

Mining is the backbone of the economy. Tin, accounting normally for 70 per cent of Bolivian exports, is by far the most important mineral, most of it coming from the plateau regions of Potosí and Oruro. During World War II, Bolivia was the world's largest tin producer.

Mineral production in 1950 was as follows: tin, 31,213 long tons; silver, 6,566,766 ounces; copper, 4,700 metric tons; zinc, 19,600 metric tons. Antimony, gold, lead, manganese ore, tungsten concentrates, and mercury are also produced; and uranium deposits have been reported. Southern Bolivia is rich in oil, as yet relatively unexploited. Production in 1951 amounted to about 480,000 barrels.

The 5,000,000 acres under cultivation produce wheat, rice, sugar, potatoes, cacao, barley, maize, coca (source of cocaine), tobacco and cotton. Production of such basic foodstuffs as wheat and rice, however, is insufficient for domestic needs, and considerable quantities must be imported. Cattle are raised in the more temperate regions of the east and south, sheep in the departments of La Paz and Cochabamba, and llamas, alpacas and vicuñas, important sources of hides, wool and meat, are raised on the plateaus by Indians whose economy is largely dependent upon them. The fur-bearing chinchilla, a native of the colder plateau regions, is also bred.

Manufacturing received considerable impetus during the Chaco War, but the output is insufficient to supply the domestic demand. Almost three-fourths of the manufacturing is carried on in La Paz. Major manufactures in 1947 had a value of about \$27,000,000.

Tin and other minerals comprise almost the whole of Bolivia's exports. Since the country is landlocked, foreign trade must pass through free ports in Chile and river ports on the Amazon. Trade statistics for three years follow (in millions of U. S. dollars):

	1948*	1949*	1950*
Exports	112.8	103.0	99.0
Imports	68.7	78.4	50.7

* Partially estimated.

Chief exports in 1950 were tin (64%) and lead (9%). The U. S. was the principal supplier (39%). Leading customers were the U. S. (52%) and Britain (41%).

From its lowland tropical forests, Bolivia gets rubber, quinine bark, almonds and brazil nuts, dyewoods, mahogany, quebracho and other hardwoods. Rubber exports in 1950 were about 2,200 short tons.

Railway mileage totals 1,454, all in western Bolivia; the principal lines connect La Paz with the Chilean ports of Arica and Antofagasta. Highway mileage in 1949 was 15,420, most of it unimproved. Airlines play an important role in Bolivian transportation; they flew 12,125,000 passenger-miles in 1950. Pan American Airways links the country with the rest of the Americas. In the lowlands, thousands of miles of navigable streams are the chief means of transportation.

The 1952 budget estimated expenditure at 5,100,000,000 bolivianos and revenue at 5,000,000,000 bolivianos. On Dec. 31, 1949, the public debt was 8,272,926,052 bolivianos, including arrears of interest.

NATURAL FEATURES AND CLIMATE. Landlocked Bolivia is a low alluvial plain throughout 60 per cent of its area toward the east, drained by the Amazon and Plata river systems. The western part, enclosed by two chains of the Andes, is a great

plateau—the Altiplano—measuring 500 by 80 miles at an average altitude of 12,000 feet. More than 80 per cent of the population lives on the plateau, which also contains La Paz, the highest capital city in the world. Lake Titicaca, half the size of Lake Ontario, is one of the highest large lakes in the world, at an altitude of 12,507 feet. Islands in the lake hold ruins of the ancient Incan civilization.

The climate varies from the humid heat of the equatorial lowlands in the east to the arctic cold of the Andean peaks. In the lowlands, the average temperature is about 77°, with no great departures; rainfall is heavy throughout the year. At higher elevations in the west (to 11,000 ft.) the climate is temperate, with occasional winter frost. In the great central plateau, the weather is always cool. In La Paz it averages about 50.4°.

Brazil (Republic)

Estados Unidos do Brasil

Area: 3,291,416 square miles.

Population (est. 1951): 53,377,000 (1945: white, 63%; Mestizo, 21%; Negro, 14%; Indian and other, 2%).

Density per square mile: 16.2.

President: Getulio D. Vargas.

Principal cities (census 1950*): Rio de Janeiro, 2,413,152 (capital and chief port); São Paulo, 2,227,512 (coffee); Recife (Pernambuco), 534,468 (seaport); Salvador (Baia), 424,142 (seaport); Porto Alegre, 401,213 (seaport); Belo Horizonte, 360,313 (mining); Fortaleza (Ceará), 280,084 (seaport).

Monetary unit: Cruzeiro.

Language: Portuguese.

Religion: Roman Catholic, 95%.

* Provisional figures.

HISTORY. Brazil, the only Latin American nation deriving its culture and language from Portugal, is by far the largest country in South America, covering nearly half the continent. In the Western Hemisphere it is second to Canada. In the world, it ranks after the U.S.S.R., China and Canada.

Brazil was discovered in 1500 by the Portuguese admiral, Pedro Alvares Cabral. Portuguese colonization efforts began in 1532 and Brazil became a royal colony seventeen years later. The later attempts of France and Holland to colonize Brazil were defeated by the Portuguese.

During the Napoleonic wars, the prince regent of Portugal (later King John VI) fled his country in advance of the French armies, and set up his royal court at Rio de Janeiro in 1808. John was drawn home by a revolution in 1820 and the Brazilians, after holding the seat of Portuguese government, rebelled at resuming colonial status and declared their independence in 1822 under Pedro, son of John VI. Harassed

by trouble with his parliament, Pedro I abdicated in 1831 in favor of his five-year-old son, who became emperor in 1840 as Pedro II. He was a popular monarch.

Despite his good works, however, Pedro II was forced to abdicate in 1889 following a military revolt, after which a republic was set up. Until 1893 Brazil was under two military dictators, Marshal Deodoro da Fonseca and Marshal Floriano Peixoto. After a revolt against the latter in 1893, Brazil returned gradually to stability under a succession of five civilian presidents—Prudente de Moraes Barros, 1894-98; Manuel Ferras de Campos Salles, 1898-1902; Francisco de Paula Rodrigues Alves, 1902-06; Affonso Penna, 1906-09, who died in office; and Nilo Pecanha, 1909-10.

The president during World War I, Wenceslau Braz, co-operated with the Allies and declared war on Germany Oct. 26, 1917. Reckless expenditure marked the term of the next chief executive, Epitacio da Silva Pessoa, 1919-22, while the presidency of Arthur Bernardes, 1922-26, was bedeviled by financial difficulties and army dissension. His successor, Washington Luiz Pereira da Souza, 1926-30, had to cope with the world depression and was overthrown by a revolutionary group under Getulio Vargas, who took over as provisional president.

Vargas' new constitution in 1934 sharply curtailed state's rights and emphasized a nationalistic policy. In 1937 Vargas seized absolute power, setting up another constitution which extended his term of office indefinitely. In World War II, Brazil co-operated well with the United Nations. Allied air bases were set up in Brazil, Brazilian naval forces patrolled the South Atlantic, and a Brazilian expeditionary force fought in Italy after the nation's declaration of war against the Axis in Aug., 1942.

National fear that Vargas would never fulfill his promise of free elections led to his overthrow on Oct. 29, 1945, and the transfer of his powers to Chief Justice José Linhares. In the subsequent elections, on Dec. 2, 1945, victory went to the Vargas candidate—Gen. Eurico Gaspar Dutra, inaugurated as president on Jan. 31, 1946.

Vargas returned to the political arena in 1950 and was elected president Oct. 3 as candidate of the left-of-center Labor party. He took office Jan. 31, 1951.

GOVERNMENT. Under the Constitution of Sept. 18, 1946, Brazil is a federation of twenty states, five territories and one federal district. The president is popularly elected for a five-year term and may not succeed himself. The national Congress is composed of two houses—the Senate, whose members serve for eight-year terms, and the Chamber of Deputies, elected for four-year terms. Members of Congress are elected by equal, direct, compulsory and

secret suffrage under a system of proportional representation.

Among the important innovations of the 1946 Constitution are articles empowering the federal government to create state-owned monopolies in the public interest and making the exploitation of mines and subsoil resources dependent on federal authorization. The Constitution also authorizes the government to intervene in labor disputes but recognizes the general principle of freedom of association and the right to strike. Labor courts handle labor-management disputes.

The twenty states, with popularly elected legislatures and governors, and their own constitutions, have considerable autonomy, but, during the first Vargas regime, suffered from federal intervention. **DEFENSE.** Military service is compulsory beginning at twenty-one, with an initial training period of one year and service on reserve until forty-five. The permanent army of 112,300 men and 258,000 reserves in 1940 was greatly expanded in World War II. Its strength in 1948 was estimated at 118,000, including 38,000 federal police.

The army received a considerable amount of U. S. lend-lease military goods during World War II. The air force, under a separate Ministry of Aviation since 1941, expanded during the war and took an active part in the Italian campaign.

The navy on Jan. 1, 1952, had in active service one old battleship, 2 cruisers, 9 fleet destroyers, 8 escort destroyers, 3 submarines and smaller craft.

EDUCATION. Education is free and compulsory; under the 1946 constitution it is given in Portuguese only. According to the 1940 census, 43.6 per cent of the population 18 years of age and over could read and write. In 1950 there were 60,000 primary schools with 4,500,000 pupils, about 1,500 secondary schools with 300,000 students and about 2,700 vocational, commercial and professional schools with 200,000 students. There are 10 universities, of which 3 are private (Catholic), 6 state and one federal (University of Brazil at Rio de Janeiro).

AGRICULTURE. Agriculture is the basis of Brazil's economy, but only 4 per cent of its area is under cultivation, the rest being grazing, forest, or non-productive land. Brazil leads the world in production of coffee and castor beans, and ranks second in cacao. Production and export of both coffee and cacao are government-controlled. The most important agricultural products in 1950-51 were coffee, 16,948,000 bags of 132 lb. each; cacao, 135,000 tons; rice, 3,000,000 tons; wheat, 520,000 tons. In 1950, 1,541,750 tons of refined sugar and 158,000,000 bunches of bananas were produced. Other crops include tobacco,

maize, fruit, cotton and coconuts. Total value of agricultural production in 1949 was about 38,819,355,000 cruzeiros.

Livestock is raised nearly everywhere, with the great centers in the central and southern states. In 1951 there were 46,400,000 cattle, and in 1950 23,900,000 hogs. **MANUFACTURING.** Manufacturing is still primarily for domestic consumption, but industrialization is progressing rapidly.

The state of São Paulo is by far the leading industrial area. Leading products are foodstuffs, textiles, chemicals and pharmaceutical products, metallurgical products, clothing, leather, glass and porcelain, paper and rubber articles.

Brazil's first steel plant, at Volta Redonda, began production on June 23, 1946. Production of pig iron and ferro-alloys in 1951 was 772,023 metric tons and steel, 841,780 tons.

Foreign trade, largely hemispheric, has been retarded by scarcity of dollar exchange. Trade statistics for 3 years follow (in billions of cruzeiros):

	1949	1950	1951
Exports	20.15	24.91	32.51
Imports	20.65	20.31	37.20

In 1951, Brazil's chief customers were the U. S. (49%), Britain (10%) and Argentina (7%). Leading suppliers were the U. S. (42%), Britain (9%) and Argentina (6%). Chief exports in 1951 were coffee (60%), cotton (12%) and cacao (4%).

Major imports include machinery, foodstuffs (largely Argentine wheat), vehicles and petroleum products.

MINERAL RESOURCES. Brazil's vast mineral resources are among her least developed assets. The most important are coal (estimated reserves of 5,000,000,000 tons; estimated 1950 production, 1,983,063 metric tons) and iron ore, found chiefly in Minas Gerais (1950 output, 1,900,000 metric tons). Other important minerals, with estimated 1950 production, are manganese ore, 162,600 metric tons; gold, 131,204 troy ounces; bauxite (1949), 16,213 tons; diamonds; tungsten; silver; quartz crystals; uranium; chrome ore; graphite; petroleum and titanium.

FORESTS AND FISHERIES. More than half of Brazil's area is forested, but the extensive resources are relatively undeveloped. The largest single forest commodities are timber, chiefly pine from the southern states, and the wax of the carnauba palm, used for insulation and phonograph records and produced commercially only in Brazil (exports 1950: 12,758 metric tons). Rubber production, mostly in the Amazon basin, was estimated in 1951 at 21,500 metric tons, but it has not developed as extensively as was once expected. Other forest products are Brazil nuts, yerba maté

(Paraguay tea), medicinal plants, and vegetable oils. There are vast fishing banks and grounds in the rivers and along the coast, with some 2,500 species of fish.

COMMUNICATIONS. Coastwise and river steamers are the main links between north and south Brazil, especially within the Amazon basin where inland waterways are the only means of land communication. Navigable waterways total 26,713 miles. Coastwise traffic is restricted to Brazilian ships, but the Amazon is open to all ships.

Railway mileage in 1951 was about 23,000, mostly located south of Recife. Railway development has been hampered by natural obstacles, especially by coastal mountains, but extensive government and private building is under way. Highways total 38,000 miles, and common roads about 124,000 miles. Brazil is served by numerous domestic and foreign airlines; mileage flown by domestic lines in 1950 was 42,500,000.

FINANCE. Recent data are as follows (in billions of cruzeiros):

	1950	1951	1952
Revenue	19.373	20.500	25.537
Expenditure	23.670	22.800	25.431

TOPOGRAPHY. Brazil covers about three-sevenths of South America, extends 2,965 miles north-south, 2,691 miles east-west, and borders every South American state except Chile and Ecuador. Its area would more than blanket that of the U. S.

There are two principal physical divisions of the Brazilian surface. The lowlands are made up of the heavily forested tropical river basin of the Amazon, the world's largest drainage area; and the less heavily forested basin of the Plata to the south. The intermediate highland is a vast plateau, 1,000 to 3,000 feet above sea level, traversed by several low mountain ranges, and extending almost from the seacoast to the Bolivian frontier and south to the plains of Rio Grande do Sul. The Central plateau comprises more than half of the country and, with the narrow coastal plain, supports 90 per cent of the population.

More than a third of Brazil is drained by the Amazon and its more than 200 tributaries. The Amazon is navigable for ocean steamers to Iquitos, Peru, 2,300 miles upstream. Southern Brazil is drained by the Plata system—the Paraguay, Uruguay and Paraná Rivers. The most important stream entirely within Brazil is the São Francisco, navigable for a thousand miles but broken near its mouth by the 260-foot Paulo Afonso Falls, with estimated potential 1,000,000 horsepower.

CLIMATE. Brazil is almost wholly in the torrid zone, but such factors as altitude, prevailing winds, rainfall and distance from the sea combine to vary the climate

from tropical to temperate. Manaus on the Amazon has an average temperature of 80.9° and annual rainfall of 71.65 inches. The corresponding figures for Rio de Janeiro are 72.5° and 44 inches. February is usually the warmest month in Rio de Janeiro. In much of the Amazon basin, rainfall averages 80 inches.

United Kingdom of Great Britain and Northern Ireland

Area: 93,371 square miles (excluding Channel Islands and Isle of Man).

Population (census 1951*): 50,211,602 (English, Scotch, Welsh, Irish).

Density per square mile: 537.8.*

Ruler: Queen Elizabeth II.

Prime Minister: Winston Churchill.

Principal cities (census 1951*): London (Greater), 8,346,000 (capital); Birmingham, 1,112,000 (iron and steel); Glasgow, 1,090,000 (seaport; shipbuilding); Liverpool, 790,000 (seaport); Manchester, 703,000 (textiles); Sheffield, 513,000 (steel, cutlery); Leeds, 505,000 (clothing); Edinburgh, 467,000 (capital, Scotland).

Monetary unit: Pound sterling.

Languages: English, Welsh, Gaelic.

Religion: Church of England (established church); Church of Wales (disestablished); Church of Scotland (established church—Presbyterian); Church of Ireland (disestablished); Roman Catholic; Methodist; Congregational; Baptist; Jewish.

* Provisional figures.

HISTORY. Roman invasions of the 1st century B.C. brought Britain into contact with the continent. When the Roman legions withdrew in the 4th century A.D., Britain fell easy prey to the invading hordes of Angles, Saxons and Jutes from Scandinavia and the Low Countries. Seven large kingdoms were established, and the original Britons were forced into Wales and Scotland. It was not until the 11th century that the country finally became united under the Danish King Canute. Following the death of Edward the Confessor (1066), a dispute as to the succession arose, and William Duke of Normandy invaded England, defeating the Saxon noble, Harold II, at the Battle of Hastings (1066). The Norman conquest was accompanied by the introduction of Norman law and feudalism, changing the customs of England.

The reign of Henry II (1154-89), first of the Plantagenets, saw an increasing centralization of royal power at the expense of the nobles, but in 1215 John (1199-1216) was forced to sign the Magna Carta, which awarded the people, especially the nobles, certain basic rights. Edward I (1272-1307) continued the conquest of Ireland, reduced Wales to subjection, and made some gains in Scotland. In 1314, however, English forces led by Edward II were ousted from Scotland after the battle

of Bannockburn. The late 13th and early 14th centuries saw the development of a separate House of Commons with tax-raising powers.

Edward III's claim to the throne of France led to the Hundred Years' War (1338-1453), which ended with the loss of almost all the large English territory in France. In England the great poverty and discontent caused by the war was intensified by the Black Death, a plague which reduced the population by about one-third. The Wars of the Roses (1455-85), a struggle for the throne between the House of York and the House of Lancaster, were ended by the victory of Henry Tudor (Henry VII) at Bosworth Field (1485).

During the reign of Henry VIII (1509-47), the Church in England asserted its independence from the Roman Catholic Church. Under Edward VI and Mary, the two extremes of religious fanaticism were reached and it remained for Henry's daughter, Elizabeth (1558-1603), to settle the Church of England on a moderate basis. In 1588 the Spanish Armada, a fleet sent out by Catholic King Philip II of Spain, was defeated by the English and destroyed during a storm. It was during Elizabeth's reign that England became a world power.

Elizabeth's heir was of the house of Stuart—James VI of Scotland—who joined the two crowns as James I (1603-25). The Stuart kings incurred large debts and were forced either to depend on Parliament for taxes or to raise money by illegal means. In 1642 war broke out between Charles I and a large portion of the Parliament; Charles was defeated and executed in 1649, and the monarchy was then abolished. The Puritan Commonwealth endured for ten years, but after the death (1658) of Oliver Cromwell, the Lord Protector, the government fell to pieces and Charles II was restored to the throne in 1660. The struggle between the King and Parliament continued, but Charles II knew when to compromise. His brother James II (1685-88) possessed none of his ability and was ousted by the Revolution of 1688, which confirmed the predominant position of Parliament. James' daughter, Mary, and her husband, William of Orange, now ruled jointly.

The reign of Queen Anne (1702-14) was marked by the Duke of Marlborough's victories over France at Blenheim, Oudenarde and Malplaquet in the War of the Spanish Succession. England and Scotland meanwhile were joined together by the Act of Union (1707). Upon the death of Anne, the distant claims of the elector of Hanover were recognized, and he became King of England as George I.

The 18th century was a period of gradual growth and change. At home the un-

THE COMMONWEALTH OF NATIONS

Europe

Political subdivision	Area (sq. mi.)	Population
United Kingdom	93,371	50,211,602 ¹
Channel Islands	75	102,770 ¹
Isle of Man	221	55,213 ¹
Gibraltar	2	25,000 ⁰
Malta	122	312,646 ¹

America—(cont.)

Political subdivision	Area (sq. mi.)	Population
Jamaica and dependencies	4,722	1,443,699 ¹
Leeward Islands	423	112,000 ⁰
Trinidad and Tobago	1,978	651,048 ¹
Windward Islands	821	277,000 ⁰

Africa

Anglo-Egyptian Sudan	967,500	8,038,000 ⁰
Basutoland	11,716	574,000 ⁰
Bechuanaland	275,000	289,000 ⁰
Gambia	4,074	279,686 ¹
Gold Coast (including Togoland)	91,843	4,181,000 ⁰
Kenya	224,960	5,500,000 ⁰
Mauritius and dependencies	807	494,519 ¹
Nigeria (including British Cameroons)	372,674	25,025,000 ⁰
Northern Rhodesia	290,323	1,931,000 ¹
Nyasaland	47,949	2,401,352 ¹
St. Helena and dependencies	126	5,040 ⁰
Seychelles	156	36,533 ¹
Sierra Leone	27,925	2,095,000 ⁰
Somaland	67,936	700,000 ⁰
Southern Rhodesia	150,333	2,146,000 ¹
South-West Africa	317,725	430,354 ¹
Swaziland	6,705	197,000 ⁰
Tanganyika Territory	362,688	7,600,000 ⁰
Uganda	93,981	5,125,000 ⁰
Union of South Africa	472,550	12,646,375 ¹
Zanzibar and Pemba	1,020	270,000 ⁰

America

Bahamas	4,404	81,440 ¹
Barbados	166	215,169 ¹
Bermudas	19	38,044 ¹
British Guiana	89,480	436,431 ¹
British Honduras	8,598	69,644 ¹
Canada	3,619,616	14,009,429 ¹
Falkland Islands and dependencies	4,618	3,641 ⁰

Asia

Aden colony	80	82,000 ⁰
Aden protectorate	112,000	650,000 ⁰
Bahrain Islands	213	110,000 ⁰
Borneo:		
Colony of North Borneo	29,417	334,141 ¹
Brunei	2,226	43,000 ⁰
Sarawak	50,000	570,000 ⁰
Ceylon	25,332	7,743,000 ¹
Cyprus	3,572	494,077 ¹
Hong Kong	391	2,030,000 ¹
India, Republic of	1,220,099	356,891,624 ¹
Malaya:		
Malayan Federation	50,680	5,337,222 ¹
Singapore and dependencies	282	1,044,672 ¹
Pakistan	337,524	75,687,000 ¹

Oceania

Australia, Commonwealth of	2,974,581	8,431,391 ¹
Fiji	7,040	301,959 ¹
Gilbert and Ellice Islands	312	35,298 ⁰
Nauru	8	2,873 ⁰
New Hebrides	4,633	50,000 ⁰
New Zealand	103,416	1,960,000 ¹
Norfolk Island	13	938 ⁰
Papua-		
New Guinea	183,540	1,440,000 ⁰
Solomon Islands	11,458	94,865 ⁰
Tonga (Friendly Islands)	250	49,667 ¹
Western Samoa	1,133	81,697 ¹

(Note: Each population figure is followed by superior number denoting the year of estimate or census: ¹ for 1952, ² for 1951, ⁰ for 1950, ³ for 1949, ⁴ for 1948, ⁵ for 1947, etc.)

willingness of the Hanoverian kings to rule resulted in the formation by the King's ministers of a cabinet, headed by a prime minister, which directed all public business. Abroad the constant wars with France resulted in expansion of the British Empire all over the globe, particularly in North America and India. This imperial growth was checked by the revolt of the American colonies (1775-81).

The age-long struggle with France broke out again in 1793, and during the lengthy Napoleonic Wars, which ended at Waterloo (1815), England was pitted at one time against almost all of Europe.

The Victorian era, named after Queen Victoria (1837-1901), saw the growth of a democratic system of government which had begun with the Reform Bill of 1832. The two important wars in Victoria's reign were the Crimean War against Russia (1853-56) and the Boer War (1899-1902). The latter was accompanied by enormous extension of England's sway throughout Africa.

The reign of Edward VII (1901-10) was marked by increasing uneasiness at home and abroad. Within four years after the accession of George V (1910), England entered World War I when Germany invaded

Belgium. The nation was led by coalition cabinets headed first by Herbert Asquith and then (Dec., 1916) by the Welsh statesman, David Lloyd George. The years after the war were marked by labor unrest which culminated in the general strike of 1926. A Labour ministry formed early in 1924 by Ramsay MacDonald fell in October of that year. In 1929 a second Labour government was formed, but the world economic depression forced a change in 1931, and a national government was formed composed chiefly of Conservative members, although MacDonald remained prime minister until 1935. King Edward VIII succeeded to the throne in 1936 on his father's death but abdicated eleven months later (in order to marry an American, Wallis Warfield Simpson, whose second divorce was then pending) in favor of his brother, who became King George VI.

The efforts of Prime Minister Neville Chamberlain to meet by peaceful means the rising tide of Nazism in Germany failed with the German invasion of Poland (Sept. 1, 1939), which was followed by England's entry into World War II (Sept. 3, 1939). Serious Allied reverses in the spring of 1940 led to Chamberlain's resignation and the formation of another coalition war cabinet by Conservative leader Winston Churchill, who led England through most of World War II. Churchill resigned as the coalition leader shortly after V-E Day, but then formed a "caretaker" government which remained in office until after the parliamentary elections of July 5, 1945, in which the Labour party won an overwhelming victory. The government formed by Clement R. Attlee on July 26 began a moderate socialistic program.

Internationally, the Attlee government continued Britain's close co-operation with the United States through the North Atlantic Treaty and in the Korean war, at the same time solidifying its position in Western Europe in opposition to the U.S.S.R. The Labour regime, returned to office by a slight majority in the parliamentary elections of Feb. 1950, lost by a narrow margin in the Oct. 1951 elections. On Oct. 26 Winston Churchill again became prime minister at the head of a Conservative government.

George VI died Feb. 6, 1952, and was succeeded by his daughter, Elizabeth II.

AREA AND POPULATION OF MAJOR SUBDIVISIONS*

Subdivision	Area, sq. mi.	Population, census 1951†
England	50,870	43,744,924
Wales	7,469	
Scotland	29,794	5,095,969
Northern Ireland	5,238	1,370,709

* Not including Channel Islands and Isle of Man.

† Provisional figures.

RULER. Queen Elizabeth II, born April 21, 1926, elder daughter of King George VI and Queen Elizabeth, succeeded to the throne on the death of her father, Feb. 6, 1952; married Nov. 20, 1947, to Prince Philip, Duke of Edinburgh, born June 10, 1921; their children are Prince Charles (heir presumptive), born Nov. 14, 1948, and Princess Anne, born Aug. 15, 1950. The Queen's sister is Princess Margaret Rose, born Aug. 21, 1930; her uncles are Prince Edward Albert, Duke of Windsor (formerly King Edward VIII), born June 23, 1894, and Prince Henry William, Duke of Gloucester, born March 31, 1900.

NATIONAL GOVERNMENT. The United Kingdom is a constitutional monarchy, with a queen and a Parliament which has two houses: the House of Lords with about 795 hereditary peers, 26 spiritual peers, 16 Scottish representative peers, a number of Irish representative peers (vacancies are no longer filled), and a few life peers who have held high judicial office; and the House of Commons, numbering since 1950 625 members elected by practically universal suffrage. Supreme legislative power is vested in Parliament, which holds office for five years unless sooner dissolved. The executive power of the Crown is exercised by the Cabinet, headed by the prime minister. The latter, normally the head of the party commanding a majority in the House of Commons, is appointed by the sovereign, with whose consent he in turn appoints the rest of the Cabinet. All ministers must be members of one or the other house of Parliament; they are individually and collectively responsible to the Crown, the prime minister and Parliament. The Cabinet proposes bills and arranges the business of Parliament but it depends entirely on the votes of confidence in Commons. By acts passed in 1911 and 1949, the lords cannot hold up "money" bills, but they can delay other bills for a period of at least one year.

By the Act of Union (1707) the Scottish parliament was assimilated with that of England, and Scotland is now represented in Commons by 71 members. The Secretary of State for Scotland, a member of the Cabinet, is responsible for the administration of Scottish affairs.

Parliamentary elections held in Oct. 1951 returned 321 Conservatives and associates, 294 Labour party, 6 Liberals, 2 Irish nationalists and 1 Irish Labour. Polling at contested elections was: Conservative, 12,660,071; Labour, 13,948,985; Liberal, 730,551; National Liberal, 1,058,048; Communist, 21,640; others, 177,329.

The members of the Cabinet as of July 1952 were Winston Churchill (Prime Minister, First Lord of the Treasury), Anthony Eden (Secretary of State for Foreign Affairs), Lord Woolton (Lord President of

the Council), Harry Crookshank (Lord Privy Seal), Lord Simonds (Lord Chancellor), Earl Alexander (Minister of Defense), Sir David Maxwell Fyfe (Secretary of State for the Home Department and Welsh Affairs), Richard A. Butler (Chancellor of the Exchequer), Marquess of Salisbury (Secretary of State for Commonwealth Relations), Oliver Lyttelton (Secretary of State for the Colonies), Sir Walter Monckton (Minister of Labour and National Service), James Stuart (Secretary of State for Scotland), Lord Leathers (Secretary of State for Co-ordination of Transport, Fuel and Power), Harold Macmillan (Minister of Housing and Local Government), Peter Thorneycroft (President of Board of Trade), Lord Cherwell (Paymaster-General).

LOCAL GOVERNMENT. England and Wales are divided into 62 administrative counties, including the county of London, and 83 county boroughs. The counties are administered by the justices and by popularly elected county councils. All incorporated towns are administered by a municipal corporation consisting of the mayor, aldermen and burgesses. Local government in Scotland is comparable to that in England and Wales.

JUDICIARY. The ultimate British court of appeal is the House of Lords; the final court of appeal for certain of the Dominions is the Judicial Committee of the Privy Council. Below the House of Lords on the civil side is the High Court of Judicature, divided into two parts, the Court of Appeal, and the High Court of Justice. On the criminal side is the Court of Criminal Appeal, which is the court of last resort barring the rare allowance of an appeal to the Lords. Actually these superior courts hear only a small fraction of the cases, and most of the trials are held in a complicated system of inferior courts, exercising original jurisdiction. The Lord Chancellor, Lord Chief Justice, Lords of Appeal in Ordinary (law members of the House of Lords), and Lord Justices of Appeal are appointed by the Prime Minister.

DEFENSE. Compulsory military service, introduced in May, 1939, is still in effect, and will continue until 1954 under the terms of National Service acts since passed. An act passed in 1950 makes 2 years' national service compulsory for men between 18 and 26. The armed forces are comprised of three separate services—the Army, the Royal Navy and the Royal Air Force. The Prime Minister retains supreme responsibility for defense, but the Minister of Defense has coordinating and executive duties.

Service ministers are no longer Cabinet members but continue to be members of the Defense Committee headed by the Prime Minister with the Minister of De-

fense as deputy chairman; this committee is responsible to the Cabinet both for the review of current strategy and for coordinating departmental action in preparation for war.

Military-budget estimates for the fiscal year 1952-53 follow:

	Estimate	Strength*
Navy	£332,250,000	153,000
Army	£491,500,000	555,000
Air	£437,640,000	315,000

* Maximum during period.

Control of the land forces is exercised by the Army Council, headed by the Secretary of State for War. Its members include the Chief of the Imperial General Staff, the Adjutant General and Quartermaster General.

The Royal Navy is controlled by the Board of Admiralty, headed by the First Lord of the Admiralty, who is responsible to Parliament. Other members include the First Sea Lord and Chief of Naval Staff. In Dec. 1951, the Royal Navy had in active service and in reserve 7 fleet carriers, 6 light aircraft carriers, 1 escort carrier, 5 battleships, 24 cruisers, 95 destroyers, 53 submarines, 2 coast-defense ships and 162 frigates and destroyer escorts. Seven aircraft carriers, 3 cruisers and several destroyers were under construction.

Naval losses during World War II totaled 2,831 vessels, including 3 battleships, 2 battle cruisers, 5 fleet carriers, 3 auxiliary carriers, 23 cruisers, 139 destroyers and 76 submarines.

Control of the Royal Air Force is vested in an Air Council analogous to the Army Council and headed by the Secretary of State for Air. The Fleet Air Arm was transferred to the Royal Navy in 1937. The R.A.F. had approximately 6,000 planes in service in 1950.

The total strength of the armed forces on Aug. 31, 1939, was 681,000. Between that date and June 30, 1945, another 5,215,000 men were inducted. Of the total of 5,896,000, 923,000 served in the Royal Navy, 3,788,000 in the Army and 1,185,000 in the Royal Air Force. The Women's Auxiliary Forces added 619,000 to their 1939 strength of 21,000.

Research and development in the field of atomic energy and weapons is the responsibility of the Ministry of Supply.

EDUCATION. The school system in England and Wales has undergone considerable change since enactment of the Education Act of 1944. This measure makes primary and secondary training available for all children at public expense, with the secondary stage starting at the age of 11. The school-leaving age was raised from 14 to 15 on April 1, 1947. Statistics for the school year 1949-50 are as follows:

England and Wales: primary and secondary schools 27,878, pupils 5,926,702; special schools 601, pupils 47,119. Scotland: primary and secondary schools 2,997, pupils 781,945.

In 1950-51 the 12 English universities and 5 university colleges had 76,768 students, the University of Wales, 5,017 and the 4 Scottish universities, 17,121.

AGRICULTURE. Agriculture remains one of Britain's chief industries, employing about 1,000,000 persons. In 1950, land under cultivation in the United Kingdom amounted to 18,342,000 acres; permanent grassland totaled 12,779,000 acres.

In Scotland more than two-thirds of the land devoted to agriculture is uncultivated rough grazings, while over two-thirds of the cultivated area is arable land; in England and Wales three-fifths of the cultivated land is under permanent grass and only one-sixth of the total agricultural land is rough grazings.

LEADING AGRICULTURAL PRODUCTS (in thousands)

	1950		1951*	
	Acres	Long tons	Acres	Long tons
Wheat	2,479	2,606	2,131	2,203
Barley	1,778	1,711	1,908	1,805
Oats	3,105	2,692	2,857	2,466
Sugar beets	429	5,216	425	4,625
Potatoes	1,235	9,507	1,050	7,973

* Provisional.

Livestock (June 30, 1951) included 10,-473,000 cattle, 19,984,000 sheep, 3,891,000 hogs and 94,344,000 poultry. Cattle occupy a predominant position in British agriculture, accounting for about 40 per cent of the total farm output. Production of cheese (1951) was 46,000 long tons; butter (including farmhouse butter), 12,000; beef and veal, 611,800; mutton and lamb, 130,-100; pork, bacon and ham (commercial), 279,000; wool, 35,300.

INDUSTRY. Great Britain is second only to the United States among the industrial nations of the world. The most important manufacture is heavy goods such as machinery, tools, bridges and locomotives; industry is concentrated in the north and Midlands of England. Sheffield is the center of the steel industry, while the china industry is concentrated in the Midlands. The cotton industry is centered in Lancashire; Liverpool, Manchester, Oldham, Preston and Bolton are the main manufacturing towns. The wool industry, England's oldest large trade, is located just east of the cotton towns, at Leeds, Bradford and Hull in Yorkshire. An important industrial region is the central Lowlands of Scotland, where woollens, silks, linens, cottons, lace, glass, paper, steel and pig iron are produced. Important shipyards are located

along the coast. The 261 vessels of 1,341,-024 gross tons launched in 1951 represented about 40 per cent of the world total. On Mar. 31, 1952, 258 vessels of 1,553,768 tons were under construction in the United Kingdom. Steel production in 1951 was 15,638,500 long tons; that of pig iron, 9,668,800 tons. The iron and steel industry passed into public ownership in 1951.

Britain's last industrial census was taken in 1935, when the total value of manufactured products was \$13,907,300,-000. The principal industries, in order of value of output in that year, were as follows: food, beverages and tobacco; engineering and transportation; textiles; metals; wood and paper products; chemicals; clothing. In Apr., 1948, there were 51,050 industrial establishments having more than 10 employees; the total working population in 1951 was 23,327,000.

TRADE. The United Kingdom's economic prosperity is dependent on its foreign trade, and the nation has made great efforts in the postwar years to build up its volume of exports.

OVERSEAS TRADE

(Value in millions of pounds sterling)

	Imports	Exports	Re-exports
1949	2,274.1	1,786.1	58.0
1950	2,608.2	2,171.2	84.8
1951*	3,914.2	2,580.0	126.6
1952†	1,902.0	1,346.6	85.3

* Provisional. † First 6 months.

LEADING EXPORTS AND IMPORTS

(in millions of pounds sterling)

Exports			
	1950	1951*	
Vehicles, ships and aircraft	404.7	480.3	
Machinery	319.4	365.2	
Cotton yarns and manufactures	158.4	209.2	
Woolen and worsted yarns and manufactures	140.4	176.8	
Iron and steel and manufactures	155.7	159.6	
Imports			
	1950	1951*	
Oilseeds and nuts	210.3	352.7	
Cotton	160.6	258.9	
Grain and flour	160.0	246.7	
Wool	191.1	246.1	
Wood and timber	93.8	220.6	

* Provisional.

DISTRIBUTION OF TRADE, 1949-51

(millions of pounds sterling; 1951 provisional)

Chief Destinations of Exports			
	1949	1950	1951
Australia	188.5	255.8	323.9
South Africa	124.7	120.7	165.2
Canada	79.3	125.9	137.2
United States	57.1	113.0	136.3
India	117.1	96.7	115.2
New Zealand	64.6	86.5	110.6

Chief Sources of Imports

	1949	1950	1951
United States	220.1	211.4	380.2
Canada	224.5	180.2	260.8
Australia	212.9	219.7	252.4
New Zealand	117.1	134.0	164.8
India	99.0	98.3	153.4
Sweden	61.4	65.9	137.5

COMMUNICATIONS. The merchant marine on June 30, 1951, totaled 5,981 ships (100 tons and over) with a gross tonnage of 18,550,361—almost 25% of the world total and second only to the U. S. merchant fleet. Losses during World War II totaled 2,426 vessels of 11,331,933 gross tons.

Nationalization of the railway and canal systems in Great Britain became effective Jan. 1, 1948, and they are now operated by the government's Transport Commission. Railway mileage in the United Kingdom (1950) was 20,469; in 1951, 1,019,500,000 passengers and 286,700,000 long tons of freight were carried. The total length of public highways is 183,477 miles, of which 157,089 are in England and Wales and 26,388 in Scotland. In Nov. 1951, licensed motor vehicles included 2,319,000 cars and 910,900 trucks (including farm vehicles). Radio receiving set licenses in March 1952 were 11,209,000; television sets, 1,456,000. Telephones numbered 5,426,150 on March 31, 1951, second only to the U. S.

British air services throughout the world are nationalized under the Minister of Civil Aviation. Service is supplied by two public corporations—British Overseas Airways (BOAC) and British European Airways. In 1950, they flew 48,228,000 air miles and carried 1,155,600 passengers.

FINANCE. Recent data are as follows (in millions of pounds):

	1950-51	1951-52	1952-53*
Revenue	3,977.8	4,433.4	4,661.4
Expenditure	3,257.3	4,053.7	4,230.6

* Budget estimate.

Notes in circulation on Apr. 2, 1952, totaled £1,393,955,378. The net deadweight debt on Mar. 31, 1952, was £25,860,000,000 (1951: £25,921,600,000; 1950: £25,802,300,000; 1949: £25,167,610,603).

ESTIMATED REVENUE AND EXPENDITURE 1952-53

Estimated Revenue	
Income tax	£1,804,225,000
Surtax	123,000,000
Death duties	175,000,000
Stamps	57,500,000
Profits tax and excess profits tax	452,000,000
Excess profits levy	5,000,000
Special contribution and other inland revenue duties	2,000,000
Total inland revenue	£2,618,725,000

Customs	£1,043,500,000
Excise	772,000,000
Total customs and excise	£1,815,500,000
Motor vehicle duties	64,150,000
Total receipts from taxes	£4,498,375,000
Surplus receipts from certain trading services	12,000,000
Wireless licenses	15,000,000
Receipts from sundry loans	26,000,000
Miscellaneous (including surplus war stores)	110,000,000
Total estimated revenue	£4,661,375,000

Estimated Expenditure

Consolidated fund:	
Interest and management of national debt	575,000,000
Payments to Northern Ireland	
Exchequer	40,000,000
Misc. consolidated fund expenditures	10,000,000
Total consolidated fund	£625,000,000
Supply services: Defense:	
Army	521,500,000
Navy	357,250,000
Air	467,640,000
Ministry of Supply	98,480,000
Ministry of Defense	17,340,000
Total supply services	£1,462,210,000
Less sterling counterpart of economic aid appropriated-in-aid of defense votes	85,000,000
	£1,377,210,000

Civil service:

Central government and finance	14,196,000
Commonwealth and foreign	92,662,000
Home department, law and justice	77,041,000
Education and broadcasting	230,934,000
Local gov't and planning, housing, health, labor and nat'l insurance	813,570,000
Trade, industry and transport	143,201,000
Works, stationery, etc.	68,832,000
Pensions	91,653,000
Supply, food and miscellaneous	598,379,000
Total civil service	£2,180,468,000

Post office (excess over revenue)	£4,498,000
Tax collection	43,386,000
Total estimated expenditure	£4,230,562,000
Surplus	430,813,000
Grand total	£4,661,375,000

TOPOGRAPHY AND HYDROGRAPHY. The United Kingdom, consisting of England, Wales, Scotland and Northern Ireland, is about one-third the size of Texas. England, in the southeast part of the British Isles, is separated from Scotland on the north by the granite Cheviot Hills; from them the Pennine chain of uplands extends south through the center of England, reaching its highest point in the Lake district in the northwest. To the west along the border of Wales—a land of steep hills and valleys—are the Cambrian Mountains while the Cotswolds, a range of hills in Gloucestershire, extend into the surrounding shires. The remainder of England is plain land, though not necessarily flat, with the rocky sand-topped moors in the southwest, the rolling downs in the south and southeast and the reclaimed marshes of the low-lying Fens in the east central districts. Scotland is divided into three physical regions—the Highlands, the Central Lowlands, containing two-thirds of the population, and the Southern Uplands. The western Highland coast is intersected throughout by long narrow sea-lochs or fiords. Scotland also includes the Outer and Inner Hebrides and other islands off the west coast, and the Orkney and Shetland Islands off the north coast.

Wales is generally hilly; the Snowdon range in the northern part culminates in Mt. Snowdon (3,557 ft.), highest in either England or Wales.

In addition to the numerous inlets and bays of the coast, England has a group of lakes in the northwest which includes Windermere, Coniston, Derwentwater, Ullswater and Grasmere. Important rivers flowing into the North Sea are the Thames, Humber, Tees and Tyne. In the west are the Severn and the Wye, which empty into the Bristol Channel and are navigable, as are the Mersey and Ribble. Scotland has many picturesque lakes; its most important river is the Clyde.

CLIMATE. Although Great Britain lies in the same approximate latitude as Labrador, its climate is tempered by the westerly winds blowing off the warm Gulf Stream. The sea winds also prevent excessive summer heat. Rainfall is abundant, especially in the early fall. London's famed "pea-soup" fogs occur most frequently in November and March. It has been estimated that clouds, fogs or mists obscure the sun for approximately two-thirds of the daylight hours.

The mean annual temperature of England and Wales is about 50°; the west coast is somewhat warmer than the east. January is the coldest month (average about 40°) and July the hottest (about 61.5°). Highest July temperatures usually occur around London, where the mean is somewhat above 64°. Coldest months in the capital are December (about 38°) and January (about 39°). The mean annual rainfall in London is 23½ inches.

North of Birmingham, the summers are cool, and in Edinburgh the mean temperature in July is usually below 60°. Rainfall is less than in London.

MINERALS. Great Britain's most important mineral resource is coal, which was responsible to a large extent for British industrial supremacy during the late 18th and the 19th centuries. The coal mines were nationalized in 1946. Reserves have been variously estimated at from 150,000 million to 200,000 million tons. Prior to World War II, coal was exported in declining amounts to the continent, mainly to France, Sweden, Denmark and Italy. Since the war, however, exports have been negligible, and Britain has been hard put to meet her own minimum domestic requirements. Mineworkers numbered approximately 698,600 in 1951.

Most of the British iron ore is produced in England, especially in Cumberland, Lancashire and Staffordshire. Tin ore and copper are obtained almost exclusively from Cornwall, while lead comes mainly from Flint, Durham and Derbyshire. Zinc occurs mainly in North Wales, the north of England, the Isle of Man and the county of Dumfries in Scotland. The whole British supply of china clay (kaolin)—of great importance in the ceramic, papermaking, bleaching and chemical industries—comes from Cornwall. Petroleum production is negligible, but oil shale exists in large quantities.

MINERAL PRODUCTION, 1950 and 1951

	(In thousands of long tons)	
	1950	1951
Coal *	216,309	222,181
Iron ore*	12,936	14,648
Superphosphates	1,048	782
Zinc (smelter)	70	70
Aluminum		
Virgin	30	28
Secondary	80	71

* 52 weeks; for coal, excluding Northern Ireland.

The most important potential sources of water power are in the highlands of Scotland, North Wales and Cumberland. Electricity generated in England, Scotland and Wales averaged 4,997,000,000 kwh monthly in 1951 and 5,575,500,000 kwh monthly in the first four months of 1952. Gas manufacture averaged 1,329,000,000 cu. m. monthly in 1951. Nationalization of the

electric and gas industries became effective in 1948.

FORESTS, FISHERIES. Great Britain was once heavily forested, but centuries of timber cutting and clearing have denuded the country of the original forests. Woodland of all types approximates 3,000,000 acres, and barely 40 per cent of Britain's surface is covered with timber. Consequently the nation is heavily dependent on imported timber.

Great Britain's sea fishing industry is among the most important in the world. The principal kinds of fish caught are herring, cod, haddock, plaice and hake, classed as wet fish, and, among shellfish, oysters, crabs and lobsters. The most important factor in the export trade is salted herring, which ordinarily represents about 70 per cent of the total. The principal grounds frequented by British fishermen are the North Sea; off Iceland; the Faeroes; south of Ireland; west of Scotland; west of Ireland; the Irish Sea and English Channel. The catch of wet fish in 1951 was 949,450 long tons valued at £45,492,004; about 40,000 men are regularly employed.

NORTHERN IRELAND

(Part of United Kingdom)

Area: 5,238 square miles.

Population (census 1951*): 1,370,709.

Density per square mile: 261.7.

Governor: Vice Admiral the Earl Granville.

Prime Minister: Viscount Brookeborough.

Principal cities (census 1951*): Belfast, 443,670 (capital); Londonderry, 50,099 (clothing).

Monetary unit: Pound sterling.

Language: English, Gaelic.

Religions (census 1947): Roman Catholic, 33.7%; Presbyterian, 31.4%; Church of Ireland, 26.9%; others, 8.0%.

* Provisional figures.

Northern Ireland comprises the six predominantly Protestant counties of Antrim, Armagh, Down, Fermanagh, Londonderry and Tyrone (collectively known as Ulster), which form the northern part of the island of Ireland. The area is an integral part of the United Kingdom, but under the terms of the Government of Ireland Act (1920) it has a semi-autonomous government, which has steadfastly refused to reconsider a decision made in 1922 not to associate itself in any sort of union with the rest of Ireland. This policy was endorsed overwhelmingly by voters in the 1949 elections.

The government has only limited powers for local purposes, and many matters are reserved to the central government at Westminster. Executive authority is vested in the Crown-appointed governor who is advised by a cabinet of eight ministers headed by the prime minister. The parliament consists of the House of Commons

of 52 members elected for 5-year terms, and the Senate of 26 members elected by the House of Commons. The general elections of Feb. 10, 1949, returned 37 Unionists, 9 Nationalists, and 6 representatives of other groups to the House. The area is also represented by 12 members in the British Parliament at London.

Agriculture is the largest single industry; about two-thirds of the country is devoted to crops and pasture under a system of mixed farming. The leading crops include potatoes, oats and flax. In 1951 there were 941,000 cattle, 563,000 sheep and 578,000 hogs.

The two principal manufacturing industries are linen and shipbuilding, both centered in Belfast. The linen industry was established by Huguenot weavers who fled France after the revocation of the Edict of Nantes in 1685.

On March 31, 1952, 21 ships of 227,390 tons were under construction at Belfast.

Revenue for the fiscal year 1951-52 was estimated at £69,771,000 and expenditure at £69,633,000, of which £19,000,000 represented Northern Ireland's "contribution" to the British treasury. Most of the taxes are collected by the United Kingdom government.

In 1949-50 there were 1,632 primary schools (up to 11 years) in Northern Ireland, with enrollment of 185,712, and 79 secondary schools, with enrollment of 26,735. Students at the Queen's University (Belfast) numbered 2,686.

The topography of Northern Ireland is somewhat similar to that of the rest of the island, with two ranges (Donegal and Sperrin) and an extensive plateau (Antrim) in the northeastern part. Mineral resources are limited to deposits of basalt, clay, sandstone and granite. Fishing is an important industry, off the coast and in the numerous lakes and rivers which abound in salmon, eels and trout. Lough Neagh, covering about 153 square miles, is the largest lake in the British Isles.

The climate is comparable to that of the rest of the United Kingdom, although somewhat more equable. The highest mean summer temperature is about 59° in July, and the mean winter temperature rarely falls below 40°. Most of the comparatively light rainfall occurs in the autumn.

ISLE OF MAN

Lieutenant Governor: Sir Ambrose Dunda.

Located in the Irish Sea, equidistant from Scotland, Ireland and England, the Isle of Man is administered according to its own laws by a government composed of the lieutenant governor (appointed by the Crown), a legislative council of 11 members, and a House of Keys of 24 elected

members, one of the most ancient legislative assemblies in the world. All sitting together constitute the court of Tynwald, which controls revenue and has executive power. Acts of the British Parliament do not affect the island unless it is specifically named.

Agriculture and fishing are the principal industries. The island is a popular English summer resort.

CHANNEL ISLANDS

Lieutenant Governor of Jersey: Lt. Gen. Sir Arthur E. Grasset.

Lieutenant Governor of Guernsey: Lt. Gen. Sir Philip Neame.

This group of islands, lying in the English Channel off the northwest coast of France, is the only portion of the Duchy of Normandy belonging to the English Crown, to which it has been attached since the conquest of 1066. It was the only British possession occupied by Germany during World War II.

For purposes of government the islands are divided into Jersey (45 sq. mi.) and the bailiwick of Guernsey (24 sq. mi.), including Alderney (3 sq. mi.), Sark (2 sq. mi.), Herm and Jethou. The islands are administered according to their own laws and customs by local governments headed by Crown-appointed lieutenant governors. Acts of Parliament in London are not binding on the islands unless they are specifically mentioned.

The two main sources of income for the population are agriculture, especially stock-raising, and the tourist trade. French is still the official language, although English is the main language of commerce.

GIBRALTAR—Status: Colony.

Governor: Lt. Gen. Sir Gordon MacMillan.

Gibraltar, at the south end of the Iberian Peninsula, is a rocky promontory commanding the western entrance to the Mediterranean. Aside from its strategic importance, it is also a free port, naval base and coaling station. It was captured by the Arabs crossing from Africa into Spain in A.D. 711. In the 15th century it passed to the Moorish ruler of Granada and later became Spanish. It was captured by an Anglo-Dutch force in 1704 during the War of the Spanish Succession and passed to Britain by the Treaty of Utrecht in 1713. Most of the inhabitants are of Spanish, Italian and Maltese descent. There are no important industries. Gibraltar's climate is equable, with summer temperatures averaging about 84° maximum. Mean annual temperature is 64.4°.

MALTA—Status: Self-governing colony. Capital: Valletta (population 23,316).

Governor: Sir Gerald Creasy.
Prime Minister: G. Borg Olivier.

Foreign trade (1951): exports (including re-exports), £1,930,614; imports, £19,584,266. Chief exports: potatoes, onions.

Agricultural products: potatoes, onions, cereals, fruits.

The Maltese islands lie between Europe and Africa, in the central channel linking the eastern and western Mediterranean. The inhabited islands are Malta (95 sq. mi.), Gozo (26 sq. mi.) and Comino (1 sq. mi.). The Knights of St. John (Malta), who obtained the islands from Charles V in 1530, reached their highest fame when they withstood an attack by superior Turkish forces in 1565. Napoleon seized Malta in 1798, but the French forces were ousted by British troops in 1799, and British rule was confirmed by the Treaty of Paris (1814). The principal importance of Malta is its strategic location as a naval base; it was heavily attacked by German and Italian aircraft during World War II but was never invaded by the Axis. Most of the population are Maltese, speaking the Phoenician Maltese language, a tongue akin to Syriac and Arabic. The islands are densely populated (2,563 per sq. mi.) and are heavily dependent on imports of foodstuffs.

Under its 1947 constitution, Malta enjoys a measure of self-government. The locally-elected assembly has complete control over domestic affairs, but the British government keeps control over matters dealing with defense and foreign affairs.

The climate is temperate and healthful. Annual mean temperature is 64.5°, with June-September the hottest months and December-February the coldest (56°). Rainfall is irregular.

AFRICA

ANGLO-EGYPTIAN SUDAN (See EGYPT).

BRITISH SOUTH AFRICAN PROTECTORATES.

High Commissioner: Sir John Le Rougetel.

The three British protectorates in southern Africa—Basutoland, Bechuanaland and Swaziland—are not part of the Union of South Africa, but are administered by a High Commissioner responsible to the Secretary of State for Commonwealth Relations in the British cabinet. He also holds the office of High Commissioner for the United Kingdom in the Union of South Africa.

BASUTOLAND—Status: Protectorate.

Capital: Maseru (population 3,383).

Resident Commissioner: E. P. Arrowsmith.

Foreign trade (1950): exports, £2,588,120; imports, £2,255,614. Chief exports: wool, mohair.

Agricultural products: corn, wheat, sorghum.

Basutoland is a mountainous enclave surrounded by the Union of South Africa and bounded by the Orange Free State, Cape Province and Natal. It was constituted a native state under British protection by a treaty signed with the native chief Moshesh in 1843. It was annexed to Cape Colony in 1871, but on Mar. 13, 1884, was restored to direct control by the Crown. The resident commissioner is advised by a council of 100, of whom 95 are nominated by the native chiefs who administer the affairs of their tribes.

The population is restricted almost entirely to the lowland strip in the west; the white population (1,676 by the last census, in 1946) consists solely of officials, missionaries, traders and a few labor agents for employers in the Union of South Africa. About 100,000 natives are regularly employed in the Union. Sheep raising is highly developed. Land is the common property of the nation, held in trust by the chiefs. There are no European farmers.

The climate is dry and variable; temperatures range from 11° to 93°. Rainfall also is variable, but is heaviest during the summer; it averages about 30 inches annually.

BECHUANALAND—Status: Protectorate. Capital: Mafeking, in Cape Province (population 4,666).

Resident Commissioner: E. B. Beetham. Foreign trade (1950): exports, £1,626,014; imports, £1,487,147. Chief export: pastoral products.

Agricultural products: hides and skins, cattle, butter, millet, maize.

Minerals: gold and silver (1950 value: £3,235).

Bechuanaland lies in south central Africa, bounded on the south and southeast by the Union of South Africa, on the west by South-West Africa, on the north by Angola and Northern Rhodesia and on the northeast by Southern Rhodesia. Its average elevation is 3,300 feet and the greater part is gently undulating. The area was placed under British protection on Sept. 30, 1885, to prevent further Boer encroachment and has since remained a British protectorate. The form of government is similar to that of Basutoland.

Most of the inhabitants are Bantu, but there were 2,325 Europeans in 1946, a few of them farmers. The country is essentially pastoral, with cattle raising and dairy farming the chief industries. Gold is mined in the Tati district near Francistown. There is also some mining of silver and copper. Timber is produced for use as fuel and pit props.

The summers are intensely hot; winters (May-August) are pleasant. Rainfall occurs mostly between December and May, and dust storms are frequent.

SWAZILAND—Status: Protectorate.

Capital: Mbabane (population 1,600).

Resident Commissioner: D. L. Morgan.

Foreign trade (1950): exports, £2,144,851; imports, £1,090,793. Chief exports: cattle, asbestos.

Agricultural products: cattle, hides and skins, butter, tobacco, corn, millet.

Minerals: asbestos, tin, gold.

Swaziland lies at the southeastern corner of the Transvaal. It is largely hilly, with an average elevation of 4,000 feet in the west. It came under the protection of the Transvaal Republic in 1894 but was made a British protectorate in 1906 under the high commissioner for South Africa.

The natives are mostly Swazi; there were 3,204 Europeans in 1946, mostly farmers. Grazing is the principal native occupation; there is excellent pasture in the high land to the west. Tropical and subtropical crops are raised in the lower areas. Tin is mined near Mbabane.

Rainfall is moderate throughout the protectorate and is heaviest in summer. Average temperature ranges from about 65° in July to 80° or more in January.

GAMBIA—Status: Colony and protectorate.

Capital: Bathurst (population 19,602).

Governor: Sir Wyn Harris.

Foreign trade (1951): exports, £3,369,357; imports, £3,997,485. Chief export: peanuts (1951: 58,790 long tons).

Agricultural products: peanuts, hides and skins, millet, rice, palm kernels.

Gambia, smallest of the British West African dependencies, is a stretch of land 200 miles long on both sides of the lower Gambia River, surrounded on all land sides by French West Africa and fronting on the Atlantic Ocean. During the 17th century it was settled by various companies of English merchants; slavery was the chief source of revenue until it was abolished in 1807. Gambia became a Crown colony in 1843. Except for the island of St. Mary, on which the capital stands, the area is administered as a protectorate.

The inhabitants, mostly Negroes or negroids, are predominantly Mohammedan. The principal economic activity is the cultivation of peanuts. Internal transportation is by steamer and launch. Temperatures are fairly regular throughout the year, ranging from about 60° to 85°. Maximum rainfall is in August and September.

GOLD COAST—Status: Colonies (Gold Coast Colony, 23,937 square miles; Ashanti, 24,379 square miles); protectorate (Northern Territories, 30,486 square miles); U. N. trust territory (Togoland, 13,041 square miles).

Capital: Accra (population 135,456).

Governor: Sir Charles Arden-Clarke.

Prime Minister: Kwame Nkrumah.

Foreign trade (1951): exports, £91,320,000; imports, £63,360,000. Chief exports: cacao (60%), gold, manganese ore.

Agricultural products: cacao (1950-51: 605,000,000 lb.), copra, palm kernels.

Minerals (1951): gold (698,640 oz.), manganese ore (804,000 long tons), diamonds (475,200 carats).

Early a center of the slave trade and of Anglo-Dutch rivalry, the Gold Coast, stretching along the Gulf of Guinea for 370 miles, became a British possession in 1871. Ashanti, in the interior, became a protectorate in 1896 and was annexed in 1901. The Northern Territories, to the north of Ashanti, were made a protectorate in 1901. Under the 1951 constitution, which gave the colony greater responsibility in its own affairs than any other British colony in Africa, the Gold Coast is administered by a governor with a cabinet headed by a prime minister and a legislative assembly of 84 (75 are Africans). Togoland, formerly German, was divided into French and British spheres and placed under League of Nations mandate after World War I and under U. N. trusteeship on Dec. 13, 1946.

Except for 6,773 non-Africans (1948), the population is all Negro. The main native industry is the cultivation of cacao, in the production of which the colony leads the world. The climate on the coast is hot and humid, ranging on the average from 78° to 80°. Rainfall is chiefly from March to July and from September to October.

KENYA—Status: Colony and protectorate.

Capital: Nairobi (pop. 1948: 119,489).

Governor: Sir Evelyn Baring.

Foreign trade (1951)*: domestic exports, \$24,068,000; re-exports, \$3,294,000; imports, \$53,323,000. Chief exports: sisal (29%), coffee (17%), hides and skins, tea.

Agricultural products: sisal (1951: 41,400 long tons), tea (6,800 tons), coffee (exports, 9,900 tons), pyrethrum, sugar cane, cotton, corn, hides and skins.

Minerals: gold (1951: 19,800 oz.), sodium carbonate, silver, salt.

Forest products: wattle bark and extract, timber.

* Import and re-export figures exclude outward transfers of imported goods to Tanganyika and Uganda.

Kenya extends along the Indian Ocean between Ethiopia and Tanganyika Territory and westward to Lake Victoria and Uganda. Formerly known as the East Africa Protectorate, it was held under a concession from the Sultan of Zanzibar by the Imperial British East Africa Company from 1888 to 1905. It became a Crown colony in 1920, the coastal strip leased from the Sultan of Zanzibar becoming a protectorate.

The colony is predominantly agricultural, and a large area is cultivated by Europeans. Altitude ranges from sea level to more than 9,000 ft.; hence, the cultivation of tropical, subtropical and temperate crops is possible. Non-natives (1948) included 29,500 Europeans, 23,900 Arabs and 90,900 British Indians.

The coastal zone of Kenya is hot and humid; February to April are the hottest months, with a mean temperature of 82° at Mombasa. June and July are coolest (76° at Mombasa). The yearly average rainfall is about 48 inches. In the interior highlands the climate is temperate, and the rainfall comparatively heavy. Yearly average temperatures at Nairobi are 60° to 66°.

MAURITIUS—Status: Colony.

Capital: Port Louis (population 79,084).

Governor: Sir Hilary Blood.

Foreign trade (1951): exports (including re-exports), 237,005,361 rupees; imports, 203,062,064 rupees. Chief export: sugar (94%).

Agricultural products: sugar (1951: 483,516 metric tons), copra, tobacco.

Mauritius is a mountainous island of volcanic origin in the Indian Ocean, about 500 miles east of Madagascar. It was seized in 1810 from the French, who had settled it in 1715, and was formally ceded to Great Britain by the Treaty of Paris (1814).

With over 600 persons per square mile, the island is one of the most densely populated regions in the world. The population has a large white element, chiefly French and British, but British Indians are predominant. There are many half-castes. The leading industry is sugar cultivation.

The climate is pleasant during the cool season, but extremely hot from December to April (90° to 96° at Port Louis). During this period there are also frequent torrents of rain and occasional severe cyclones.

NIGERIA—Status: Colony and protectorate.

Governor: Sir John S. Macpherson.

Principal cities (est. 1948): Ibadan, 335,000 (native metropolis); Lagos, 230,000 (capital); Kano, 100,000 (textiles, leather goods, cattle).

Monetary unit: British pound.

Languages: Native tongues, Arabic, English.

Religions: Mohammedan, Pagan, Christian.

Nigeria, with an area twice that of California, is situated on the Gulf of Guinea in West Africa. It was visited by European traders and explorers in the 16th and 17th centuries, and by the end of the 18th century British operators had a virtual monopoly in the area. Between 1879 and 1914, a series of private colonial developments by the British, together with reorganizations of the Crown's interest in the region, resulted in the formation of Nigeria as it exists today. During World War I, native troops of the West African frontier force joined with French forces to defeat the German garrison in the Cameroons. The Cameroons, a narrow strip along Nigeria's eastern border, became a League mandate after World War I, divided

between France and Britain. Today the British Cameroons, a U. N. trust territory, is attached to Nigeria for administrative purposes.

The governor of Nigeria, named by the British Crown, heads the administration of the colony, which (including the Cameroons) is divided into four sections, each composed of several provinces. Under the 1951 constitution, each of the three regions of Nigeria proper has an elected legislative assembly, which in turn elects the members of the central legislature. There are also regional and central legislative councils.

The vast majority of the population is Negro, although in the north there has been an admixture caused by invasions of Fula, Berber and Arab or Arabized people. Mohammedanism is the dominant religion. Christian missionaries are active.

Most of the people are agriculturists. The staple food crops are durra (guinea corn), millet, yams, bananas and maize. Among the leading export crops are cacao (1951 exports: 121,440 long tons), peanuts (decorticated) (141,600 tons), palm kernels (324,000 tons), palm oil (150,000 tons) and rubber (1950: 13,105 tons). Hides and skins are also important export items. Aside from small native industry, there is no manufacturing.

Most external trade is with Britain. Chief exports are cacao, peanuts, palm kernels and oil and tin ore. Exports in 1951 totaled £128,400,000; imports, £84,000,000.

There is a substantial internal trade; Kano is a busy terminal for caravan routes. The Niger and several other rivers are navigable; otherwise, the 1,901 miles of railway are the chief means of transportation. Highway mileage totals about 21,000. The main ports, except Lagos, are on rivers. Air service is supplied by BOAC, Air France and other international lines.

Nigeria is a leading tin producer—8,520 tons in 1951—from mines on the Bauchi plateau. Other minerals are coal, gold, lead, silver and tungsten. Over half the area is forested, but forest resources are comparatively unexploited. Mahogany is the main timber export, followed by cedar and walnut. Gum arabic is also exported.

Extending from twenty to sixty miles inland from the coast is the swampy Niger delta region, gradually giving way to hilly forest land. The larger part of the colony belongs to the great African plateau which, in Nigeria, reaches a maximum height of 3,000 feet. All of the colony lies within the tropics, but the climate varies from tropical in the south to near temperate on some parts of the plateau. In the south the temperature varies between 70° and 100°, and averages upwards of 80°.

NORTHERN RHODESIA—Status: Colony.

Capital: Lusaka (population 4,620).

Governor: Sir Gilbert Rennie.

Foreign trade (1951): exports, £66,395,-923; re-exports, £691,440; imports, £35,377,-063. Chief export: copper (84%).

Agricultural products: tobacco, maize, wheat.

Minerals: copper (1951: 309,142 long tons), cobalt, vanadium, lead, zinc.

Northern Rhodesia is in south central Africa, bounded on the north by the Belgian Congo and Tanganyika Territory, on the east and southeast by Nyasaland and Mozambique, on the southeast and south by Southern Rhodesia and Bechuanaland, and on the west by Angola. Much of the country consists of high plateau, with the Congo-Zambezi watershed rising in places to 5,000 feet. Rhodesia was assigned in 1889 to the British South Africa Company, headed by Cecil Rhodes. Administrative control was transferred to the Crown on Apr. 1, 1924.

Native tribes number from 50 to 60; there were 37,220 Europeans in 1951. More than 3,000,000 acres are owned and occupied by Europeans. Metals constitute almost all exports by value. Lead and zinc deposits occur at Broken Hill; copper at Bwana MKuba. The main line of the Rhodesian railway crosses the northern part of the colony from Livingstone to the Congo border. A number of rivers are navigable.

Average temperature in the south ranges from about 65° in July to 80° or more in October. The rainfall occurs principally between November and April.

NYASALAND—Status: Protectorate.

Capital: Zomba (pop. 1949: 7,526).

Governor: Sir Geoffrey F. T. Colby.

Foreign trade (1950): exports and re-exports, £5,173,528; imports, £7,870,143. Chief exports: tobacco (65%), tea.

Agricultural products: tobacco (1950: 15,928 short tons), tea, cotton.

Nyasaland, a British protectorate since 1891, is a narrow area lying between Mozambique, Northern Rhodesia and Tanganyika Territory along the southern and western shores of Lake Nyasa. Agriculture is the chief occupation, both of the European settlers and natives. Europeans numbered 3,820 in 1950.

Lake Nyasa furnishes the principal transportation facility. Mineral and forest resources are limited.

The climate is extremely humid along the shores of Lake Nyasa, although the temperature rarely rises above 95°. In the highlands, above 3,000 feet, average temperatures are considerably lower. The dry season, from May to September, is comparatively cool.

ST. HELENA—Status: Colony.

Capital: Jamestown (population 1,547).

Governor: Sir George A. Joy.

Foreign trade (1950): exports, £140,212; imports, £120,132. Chief exports: flax fiber and tow.

Agricultural products: flax, potatoes.

St. Helena is a volcanic island (47 sq. mi.) in the South Atlantic about 1,200 miles from the west coast of Africa. It is famous as the place of exile of Napoleon (1815-21). It was taken for Britain in 1651 by the British East India Company and became a Crown colony in 1833. Attached to it are Ascension Island (84 sq. mi.), 800 miles northwest, and the Tristan da Cunha group (45 sq. mi.), about 1,500 miles southwest. Most of the inhabitants are of mixed European, East Indian and African descent. Ascension was an Allied air base in World War II.

Although St. Helena is in the tropical zone, its climate is temperate and healthful; the temperature varies from 68° to 84° in summer and 57° to 90° in winter.

SEYCHELLES—Status: Colony.

Capital: Victoria (population 9,497).

Governor: Frederick Crawford.

Foreign trade (1950): exports (domestic), 8,310,996 rupees; imports, 5,885,963 rupees. Chief export: copra (80%).

Agricultural products: cinnamon, patchouli oil, coconuts, maize, sugar cane.

This archipelago of about 92 islands in the Indian Ocean was seized from France by British troops in 1794 and was ceded to Great Britain by the Treaty of Paris in 1814. The principal island is Mahé (55 sq. mi.), about 600 miles northeast of Madagascar. The climate is temperate.

SIERRA LEONE—Status: Colony and protectorate.

Capital: Freetown (population: 64,576).

Governor: Sir George Beresford-Stooke.

Foreign trade (1950): exports, £6,959,130; imports, £6,745,865. Chief exports: palm kernels (34%), iron ore, diamonds, ginger.

Agricultural products: palm kernels and oil, rice, millet, cassava, rubber.

Minerals: diamonds (1950: 638,312 carats); iron ore (1,142,621 long tons), gold (2,804 oz.).

Forest products: palm kernels, piasava.

Sierra Leone lies on Africa's west coast between French Guinea and Liberia. It is a well-watered hilly country but has a low swampy coastland with an extremely unhealthy climate. The coastal area (colony proper) was ceded to English settlers in 1788 as a home for Negroes discharged from the British armed forces and also for runaway slaves who had found asylum in London. The British protectorate over the hinterland was proclaimed in 1896. It was not until 1928 that slavery was totally abolished in the protectorate.

Freetown is the best harbor on the west coast.

SOMALILAND—Status: Protectorate.

Administrative Center: Hargeisa (population 17,500).

Governor: Sir Gerald Reece.

Foreign trade (1950): exports, £726,040; imports, £1,217,448. Chief export: hides and skins.

Agricultural products: cattle, hides and skins, grains.

Forest products: gums and resins.

British Somaliland extends along the Gulf of Aden for about 400 miles and inland for 80 to 220 miles. The interior is an elevated plateau falling in steep escarpments to the coastal plain. It came under Egyptian influence in 1875, but during the years 1884-86 treaties guaranteeing British protection were signed with the various Somali chiefs. Italian troops occupied the protectorate in 1940, but it was retaken by British troops in 1941. Both executive and legislative power is exercised by the governor.

Most of the inhabitants are nomadic Somalis of Mohammedan faith. Their principal activity is stock raising. The climate is extremely hot and arid, with rainfall in the coastal areas averaging less than 8 inches. The average temperature at Berbera, on the coast, is 77° in January and about 98° in July.

SOUTHERN RHODESIA—Status: Self-governing colony.

Capital: Salisbury (population: 61,760).

Governor: Maj. Gen. Sir John N. Kennedy.

Prime Minister: Sir Godfrey M. Huggins.

Foreign trade (1951): exports, £42,014,789; re-exports, £9,775,940; imports, £85,752,282. Chief exports: tobacco (32%), gold, asbestos, chrome ore.

Agricultural products: tobacco (1951: 91,558,189 lb.), corn, peanuts, meat, hides and skins.

Minerals: gold (1951: 486,907 oz.), asbestos (77,663 short tons), chrome ore, coal.

Southern Rhodesia is located between Northern Rhodesia, Bechuanaland, the Union of South Africa and Mozambique in south central Africa; it is part of the great South African plateau. The Zambezi River separates Northern and Southern Rhodesia. About two-thirds of the area is covered by trees and shrubs.

The country was settled in 1890 by the British South Africa Company, led by Cecil Rhodes. With the expiration of the company's charter, the white residents voted (1922) in favor of a responsible government of their own, and on Sept. 12, 1923, the country was annexed to Britain.

Southern Rhodesia's constitutional position is midway between that of a colony and a dominion. It has responsible government and a popularly elected Legislative Assembly of 30 members, but control of foreign relations and certain other matters is reserved to the U. K. government.

Most of the inhabitants are natives, but the country is well-adapted to European settlers, who in mid-1951 numbered 136,017. In addition, there were 10,307 Asiatics and half-castes. Mining is the basis of the economy. Farming ranges from ranching to tobacco growing, but mixed farming is

becoming more common. Conditions for cattle raising and dairy farming are especially favorable. Manufacturing is of growing importance, with the factories producing goods valued at £42,413,930 in 1950. The colony is well served with railways (1,361 mi.), roads (4,000 mi.) and airlines.

The hottest month is October (mean maximum 85.2°); the coolest are June, July and August, when frost is likely to occur. Generally the days are hot throughout the year, and the nights are frequently cool. Rainfall is greatest in October, November and December.

SOUTH-WEST AFRICA (See UNION OF SOUTH AFRICA)

SWAZILAND (See BRITISH SOUTH AFRICAN PROTECTORATES)

TANGANYIKA TERRITORY—Status:

U. N. trust territory.

Capital: Dar es Salaam (pop. 1948: 69,-227).

Governor: Sir Edward F. Twining.

Foreign trade (1951)*: domestic exports, £39,343,000; re-exports, £1,003,000; imports, £28,018,000. Chief exports: sisal (60%), coffee (11%), cotton, hides and skins.

Agricultural products: sisal (1951: 145,-200 long tons), cotton (8,600 tons), coffee, peanuts, sugar cane, tobacco, tea.

Minerals: diamonds (exports 1951: 8,400 carats), gold (66,000 oz.).

Forest products: gum arabic and copal, beeswax, timber.

* Import and re-export figures exclude outward transfers of imported goods to Kenya and Uganda.

Tanganyika Territory, with the Belgian Ruanda and Urundi, constituted German East Africa from 1884 until 1919. It was administered under League of Nations mandate by Britain until 1946, when it was placed under United Nations trusteeship, with Great Britain as the administering power.

Tanganyika's narrow coastal plain is bordered on the west by the precipitous eastern side of the Central African plateau. Mount Kilimanjaro (19,565 ft.) is the highest point on the African continent. The territory also includes adjacent islands in the Indian Ocean.

The territory is sparsely populated; about two-thirds of the total area is uninhabited. In 1948 there were 16,100 Europeans and 59,300 Asiatics. It is the world's largest producer of sisal hemp. Most of the hemp, which is of the highest grade, is grown in the drier parts of the coast belt under European supervision. Stock raising is also important, but its progress is hampered by prevalence of the tsetse fly. A large diamond vein was discovered at Shinyanga in 1946.

The climate generally is hot and humid on the coastal areas, with the temperature averaging 80° at Dar es Salaam. Rainfall

in the capital averages 60 inches. Inland the rainfall and temperature are lower.

UGANDA—Status: Protectorate.

Capital: Entebbe (population 7,321).

Governor: Andrew Cohen.

Foreign trade (1951)*: domestic exports, £47,197,000; re-exports, £246,000; imports, £22,436,000. Chief exports: cotton lint (61%), coffee (29%).

Agricultural products: cotton (1950-51: 60,700 long tons); coffee (1951 exports: 43,600 tons), sugar cane, rubber, tea, sisal.

Minerals: gold, tin.

* Import and re-export figures exclude outward transfers of imported goods to Kenya and Tanganyika.

Uganda lies immediately south of Anglo-Egyptian Sudan and west of Kenya, along the northwest shore of Lake Victoria. The surface is extremely diversified, with lofty plateaus, snow-capped peaks, swamps, forests and arid areas. A British protectorate over the area was proclaimed in 1894. A large measure of home rule is given the native states, notably Buganda, whose *kabaka* (king) is assisted by a ministry and native parliament.

Agriculture, including livestock, is the basis of the economy. Cotton is raised, principally by natives, and coffee, tea and rubber are grown on large plantations. Most natives possess large herds of cattle and sheep. In 1948 there were 7,600 Europeans and 37,450 Asiatics in the protectorate.

Like the topography, the climate is extremely variable. At Entebbe, the mean temperature is about 70°, with rainfall heaviest from March through May, and in November and December.

Union of South Africa (Member of British Commonwealth)

Area: 472,550* square miles.

Population (census 1951): 12,646,375* (European, 21.0%; Bantu, 67.5%; mixed, 8.2%; Asiatic, 3.3%).

Density per square mile: 26.8.

Governor General: Ernest G. Jansen.

Prime Minister: Daniel F. Malan.

Principal cities (census 1951): Johannesburg, 880,014 (gold, industrial center); Capetown, 571,638 (seat of legislature, seaport); Durban, 475,026 (seaport); Pretoria, 283,148 (seat of administration); Port Elizabeth, 187,071 (seaport).

Monetary unit: South African pound (RSA).

Languages: English, Afrikaans.

Religions (European pop., 1946): Dutch Reformed Churches, 55%; Anglican Church, 19%; Methodist, 6%; Presbyterian, 5%; Roman Catholic, 5%; others 10%.

* Excluding South-West Africa.

HISTORY. After the discovery of the Cape of Good Hope in 1488 by Bartholomeu Diaz, the Dutch sent the first colonists to the area in 1652. The British seized the territory in 1814 near the close of the Napoleonic wars, when Holland was France's

ally. In protest against the British rule, thousands of Boers, settlers of Dutch descent, trekked northward between 1835 and 1838 and set up the republics of Orange Free State and Transvaal, subsequently recognized by the British.

The discovery of gold in Transvaal in 1886 brought an influx of English and other foreigners. British demands that these immigrants be enfranchised by the Transvaal government precipitated the South African War of 1899-1902, won by the British. By the Treaty of Vereeniging (May 31, 1902) the Boers renounced the independence of Transvaal and Orange Free State. In 1910, Cape Colony, Transvaal, Natal and the Orange Free State were set up as the Union of South Africa, with dominion status and with Louis Botha, a former Boer general, as the first prime minister. During World War I, South African forces seized German South-West Africa, over which the Union later received a mandate by the Treaty of Versailles.

When World War II broke out, there was considerable pro-German and anti-British feeling in South Africa. The country went to war against the Axis, however, under the leadership of Prime Minister Jan C. Smuts, and South African forces fought in many theaters.

In the elections of May, 1948, Smuts' United party was defeated by a Nationalist-Afrikaner coalition, which favored strict racial segregation. Enforcement of this policy has led to severe racial disturbances and unrest.

GOVERNMENT. The Union of South Africa, as a self-governing nation, has its own legislature, a Senate of forty-eight members elected for ten years, and a House of Assembly of 159 members elected for five years. All legislators must be Union nationals of European descent, and suffrage is virtually limited to whites. The governor general, appointed by the British Crown after consultation with the Union, can summon or dissolve the Senate and House, but a general election must be held at least once every five years.

In parliamentary elections held on May 26, 1948, 71 seats went to the Nationalist party, 64 to the United party, 9 to the Afrikaner party and 6 to the Labour party. The first parliamentary elections in South-West Africa, held Aug. 30, 1950, added 6 new Nationalist seats. Three seats are held by the natives.

The elected councils in each of the four provinces have only such powers as are delegated to them. Each is headed by an administrator appointed by the central government.

Political considerations made the draft inexpedient in World War II, and all members of the armed forces were volunteers.

The postwar strength of the defense forces is fixed as follows: army, 4,640; air force, 3,319; navy, 863; a total strength of 8,822 as opposed to 5,549 in the prewar establishment. The navy, only slightly expanded in World War II, has 60 small vessels.

EDUCATION. Education for white children is compulsory from 7-16. Primary education is free and, except for vocational schools and the six universities, all education is under provincial control.

In 1946 there were 2,851 state and state-aided primary and secondary schools for European scholars, who numbered 413,884, and 6,030 non-European schools with enrollment of 864,410. The enrollment of university students was 23,887 in 1948.

The official languages are English and Afrikaans. The latter, derived from 17th-century Dutch, is taught in almost all the schools. About 70 per cent of the population over 7 years old understands both languages. People speaking Afrikaans as a "home" language predominate in all provinces except Natal, where most of the Asiatic population, chiefly laborers from South India, is concentrated. European and Asiatic immigration is strictly controlled.

AGRICULTURE. South Africa is predominantly a pastoral country, with less than 15 per cent of its area considered arable. Sheep and cattle raising are the principal occupations, especially in the high veldt. Wool production in 1951 was estimated at 240,000,000 lbs. In 1949 there were 31,908,000 sheep, 12,242,000 cattle and 761,000 hogs.

Climate and differences in terrain combine to give a great variety of agricultural products. The staple crop is maize, grown widely with a production varying from 1½ to 3 million tons annually. In southwest Cape Province, products of the Mediterranean type predominate, while in the coastal belt of Natal and in northern Transvaal, subtropical crops, especially sugar, are grown.

Production of leading crops in recent years has been estimated as follows: maize (1950-51: 2,717,000 short tons); wheat (748,000 tons); tobacco (21,670 tons); sugar (684,000 tons).

MANUFACTURING & TRADE. In 1948-49, there was a total of 14,361 factories with 670,000 workers, and gross value of industrial output (1947) of £491,800,000. Food, beverages and tobacco, and metal products are leading products. As a result of the need for armaments in World War II, the Union's manufacturing is no longer mainly devoted to agricultural processing. A wartime iron and steel industry was established, and cement, chemical, textile and auto assembly plants were expanded. Steel production (1951) was 1,008,000 short tons; that of pig iron, 884,000 tons. The major industrial area is southern Transvaal.

Trade statistics (in millions of South African pounds):

	1949	1950	1951
Exports*	156.7	252.1	343.2
Re-exports†	17.1	23.5	33.5
Imports	315.2	307.2	469.9

* Excluding gold bullion. † Included in export total.

Chief customers in 1951 were Britain (24%), France (15%), the U. S. (11%) and Southern Rhodesia (8%); the principal suppliers, Britain (35%), the U. S. (19%), Canada (6%). Chief exports (1950; besides gold bullion) were wool (25%), semi-processed gold (12%), and diamonds (8%). Principal imports included textiles, farm and industrial machinery, motor vehicles and petroleum products.

COMMUNICATIONS. The well-organized railway system, mostly Union-controlled, totaled 13,942 miles in 1950. Roads suitable for motor traffic amounted to 100,000 miles. Regular air service is available to Europe and to the U. S.

FINANCE. Recent data are as follows (in millions of South African pounds):

	1950-51*	1951-52†	1952-53†
Revenue	195.7	168.4	207.3
Expenditure	223.2	182.0	205.9

* Preliminary. † Budget estimate.

The gross public debt of the Union on Jan. 31, 1952, was £SA778,600,000, of which £SA42,400,000 was external. Notes in circulation on Mar. 31, 1952, totaled £SA80,100,000; the gold reserve was U. S. \$169,000,000 (Mar. 31, 1946: \$939,000,000).

TOPOGRAPHY AND CLIMATE. The Union has a high interior plateau, or veldt, nearly half of which averages 4,000 feet in elevation. There are no important mountain ranges, although the Great Escarpment, separating the veldt from the coastal plain, rises to over 10,000 feet. The principal river is the Orange, rising in Basutoland and flowing westward for 1,300 miles through the Union's center to the Atlantic.

Except for the western semi-arid regions, the climate is generally subtropical, much like that of northern Florida. Rainfall averages about 40 inches a year on the east coast and decreases sharply westward. The mean annual temperature is remarkably uniform; at Johannesburg it is 60.6°, with January the hottest month. Most of the rainfall occurs from October to March.

MINERALS, FORESTS AND FISHERIES. Extensive mineral resources account for the economic prosperity. The dominion is the world's leading gold producer. Diamond production is now surpassed in importance by coal. Mineral production for 1951 included gold, 11,516,450 oz.; coal, 28,767,732 short tons; copper, 38,531 tons; diamonds, 2,228,911 carats; (1950) manganese ore, 871,862 tons; chromite, 547,106 tons; iron ore, 1,310,921 tons; asbestos,

87,414 tons; platinum, 144,217 oz. Gypsum, tin, tungsten and antimony also are mined, and uranium deposits have been reported.

Forests cover only a small portion of the Union, and are mostly in the east. The whaling industry, centered at Durban on the east coast, produces considerable amounts of whale oil. The Union has extensive fishery resources along the 1,500 miles of coast line. Annual trawler catch of edible fish is about 95,000,000 pounds.

SOUTH-WEST AFRICA—Status: Mandate.

Administrator: A. J. R. van Rhyn. Capital: Windhoek (population 23,359). Foreign trade (1951)*: exports, £SA28,846,449; imports, £SA17,980,744. Chief exports: karakul skins, butter, slaughter animals, diamonds.

Agricultural products: hides and skins, butter, corn, wheat.

Minerals: diamonds (1951: 502,982 carats), vanadium concentrates, tungsten, lead, tin, iron ore, copper.

* Includes trade with Union of South Africa.

The mandate, bounded on the north by Angola, and on the east by Bechuanaland and the Union of South Africa, was discovered by the Portuguese explorer Diaz in the late 15th century. It is for the most part a portion of the high plateau of South Africa with a general elevation of from 3,000 to 4,000 feet. It became a German colony in 1884 but was conquered by South African forces in 1915, becoming a Union mandate by the terms of the Treaty of Versailles. The Union of South Africa's application for incorporation of the territory into the Union was rejected by the United Nations assembly on Dec. 14, 1946, and the Union was invited to prepare a trusteeship agreement instead. By a law passed in April, 1949, however, the territory was brought into much closer association with the Union—including representation in the Union Parliament.

The country in general is better suited to grazing than to the raising of crops because of the light rainfall. The karakul sheep industry is particularly well-developed; in 1951, 2,574,631 pelts were exported. The Union accounts for almost all the imports and about 40 per cent of the exports. Most of the natives live on large reserves. The principal port is Walvis Bay.

ZANZIBAR—Status: Protectorate.

Capital: Zanzibar (population 60,000).

Sultan: Seyyid Sir Khalifa bin Harub.

British Resident: J. D. Rankine.

Foreign trade (1951): exports, £5,296,129; re-exports, £889,763; imports, £5,263,002. Chief export: cloves (81%).

Agricultural products: cloves (1951: 9.765 long tons), copra, sisal.

The protectorate consists principally of the islands of Zanzibar (640 sq. mi.) and Pemba (380 sq. mi.), just off the East Af-

rican coast. Before 1890, the sultanate's territory also included a large area on the mainland, now comprising Italian Somaliland, Kenya and Tanganyika Territory. It was proclaimed a British protectorate Nov. 4, 1890. The British resident administers the government, but the sultan still retains considerable authority.

The principal industry is the production of cloves—80 per cent of the world supply.

The climate is excessively hot and moist, with a mean annual temperature of 80.5°. June to September is the coolest season.

WESTERN HEMISPHERE

BAHAMAS—Status: Colony.

Capital: Nassau (population 33,247).

Governor: Maj. Gen. Sir Robert Neville.

Foreign trade (1951): exports (including re-exports), £1,020,000; imports, £7,650,000. Chief exports: lumber, tomatoes.

Agricultural products: tomatoes, citrus fruit, sisal.

Sea products: sponges, lobsters.

The Bahamas are an archipelago of about 3,000 islands, islets (cays) and rocks, east of Florida and north of Cuba, extending from N.W. to S.E. for about 800 miles. Only about 20 of the islands are inhabited; the most important is New Providence (20 sq. mi.) on which Nassau is located. The islands were reached by Columbus in Oct., 1492, and were a favorite pirate resort in the early 18th century. They have been a Crown colony since 1717. The constitution provides for a nominated Legislative Council and a popularly elected Assembly. The governor is advised by an Executive Council.

About 87 per cent of the population is Negro. The tourist trade is of considerable importance, especially at Nassau, which is a favorite winter resort. The climate is exceptionally agreeable, with mean temperatures ranging from 60° (January to March) to 88° (June to September). The rainy season is May through October; hurricanes occur usually from July to October.

Agriculture, except for tomato and sisal culture, is of little importance. Straw and shellwork are the principal industries. An R.A.F. unit is stationed in the archipelago.

BARBADOS—Status: Colony.

Capital: Bridgetown (population 13,345).

Governor: Sir Alfred Savage.

Foreign trade (1951): exports, BWI\$35,464,166; imports, BWI\$51,918,327. Chief exports: sugar (65%), molasses, rum.

Agricultural products: sugar (1951: 164,566 long tons), cotton.

Manufactures: rum (1951: 1,775,624 wine gal.), molasses (23,077 long tons).

Barbados, an island east of the Windward group in the West Indies, has been a British possession since 1627; it is believed to have been first visited by the Portuguese. The colony has a nominated Legisla-

tive Council and a popularly elected Assembly of 24 members, but the Crown, through the governor, has veto power.

The island is very densely populated (about 1,295 per sq. mi.). About 70 per cent of the inhabitants are Negro, 7 per cent white and the remainder of mixed blood. Approximately 70 per cent of the total area is cultivated and half of this is devoted to sugar, which is the staple product; there are sugar and molasses plants and several rum distilleries.

Barbados has an agreeable climate, with temperatures that range between 70° and 86°, rarely below 65°. The cold season (December through May) is also the dry season; average annual rainfall is 60 inches, with September the wettest month.

BERMUDAS—Status: Colony.

Capital: Hamilton (population 3,500).

Governor: Lt. Gen. Sir Alexander Hood.

Foreign trade (1951): exports (including re-exports), £1,362,100; imports, £10,628,280. Chief export: cut flowers.

Agricultural products: lily bulbs, potatoes, vegetables, arrowroot.

The Bermudas comprise an archipelago of about 360 small islands, 580 miles east of North Carolina. The largest is (Great) Bermuda or Main Island. Discovered by Juan Bermudez, a shipwrecked Spaniard, early in the 16th century, the islands were settled in 1612 by an offshoot of the Virginia Company and became a Crown colony in 1684. The governor is assisted by nominated Executive and Legislative Councils and a popularly elected Assembly of 36 members. In 1940, sites on the islands were leased for 99 years to the U. S. for air and navy bases. Bermuda is also the headquarters of the West Indies and Atlantic squadron of the Royal Navy. The most important factor in the colony's economy is the tourist trade. The mean annual temperature is 71°, with extremes of 49° and 94°. Rainfall averages 58 inches annually.

BRITISH GUIANA—Status: Colony.

Capital: Georgetown (population 97,821).

Governor: Sir Charles Woolley.

Foreign trade (1951): exports (including re-exports), BG\$58,710,301; imports, BG\$65,249,147. Chief exports: sugar (46%), bauxite (28%), rice, rum.

Agricultural products: sugar (1951: 217,306 long tons), rice, copra, coffee.

Minerals: bauxite (1951: 2,002,744 long tons), gold (14,689 oz.), diamonds (43,260 carats).

Forest products: balata, timber.

The only British possession in South America proper, British Guiana is on the northeastern coast between Venezuela and Surinam (Dutch Guiana). Settled by the Dutch in the 17th century, it was occupied by the British in 1796 and ceded to them at the end of the Napoleonic wars. Behind the low plain which contains the farm area is a higher area containing for-

est and mineral resources. The governor is assisted by an Executive Council; the Legislative Council has an elected majority.

The heterogeneous population includes Africans and mixed races, 49.5 per cent; East Indians, 44 per cent; aborigines, 2.5 per cent; Portuguese, 2.2 per cent; Chinese, 1 per cent; and others, .8 per cent.

Cultivated areas cover only 155,000 acres, mostly devoted to rice and sugar cane. About 86 per cent of the colony is forested, but the vast forest resources are relatively unexploited. Timber resources have been estimated at 41,000,000,000 cu. ft. of merchantable timber. Railway mileage is 110, and highway mileage about 700; communication to the interior is mainly by steamer and launch. The colony's production of bauxite was of strategic importance during World War II.

The coastland climate is relatively hot and humid, with average temperatures of 78° in January and 81° in October, and only a slight variation between day and night. Inland temperatures are roughly 3° higher. Rainfall is quite heavy along the coast.

BRITISH HONDURAS—Status: Colony.

Capital: Belize (population 31,221).

Governor: Patrick M. Renison.

Canada

(Member of British Commonwealth)

Area (land only): 3,619,616 square miles.

Population (census 1951): 14,009,429 (1941*: British, 50%; French, 27%; German, 4%; Ukrainian, 2%; others, 17%).

Density per square mile: 3.9.

Governor General: Vincent Massey.

Prime Minister: Louis Stephen St. Laurent.

Principal cities (census 1951): Montreal, 1,021,520 (seaport); Toronto, 675,754 (manufacturing center); Vancouver, 344,833 (Pacific seaport); Winnipeg, 235,710 (grain); Hamilton, 208,321 (iron and steel); Ottawa, 202,045 (capital); Quebec, 164,016 (seaport); Halifax, 162,217 (seaport); Edmonton, 159,631 (petroleum); Calgary, 129,060 (farming).

Monetary unit: Canadian dollar.

Religions (census 1941)*: Roman Catholic, 42%; United Church, 19%; Anglican, 15%; Presbyterian, 8%; Baptist, 4%; others, 12%.

* Excluding Newfoundland.

HISTORY. The Norse explorer Leif Ericsson probably reached the shores of Canada (Labrador or Nova Scotia) in A.D. 1000, but the history of the white man in the country actually began in 1497, when John Cabot, an Italian in the service of Henry VII of England, reached the shore of Newfoundland or Nova Scotia. Canada was taken for France in 1534 by Jacques Cartier. The actual settlement of New France, as it was then called, began in 1604 at Port Royal in what is now Nova Scotia; in 1608

Foreign trade (1951): exports (including re-exports), BHS\$6,224,289; imports, BHS\$12,377,304. Chief exports: chicle, mahogany.

Agricultural products: bananas, sugar cane, citrus fruits.

Forest products (1951): cedar lumber and logs (840,000 bd. ft.), mahogany logs and lumber (10,800,000 bd. ft.), pine lumber (15,321,984 bd. ft.), chicle (442 short tons).

British Honduras is bounded on the north by Mexico and on the west and south by Guatemala. It was settled in 1662 by woodcutters from Jamaica. An irregular form of local government continued until 1871, when it became a Crown colony; it was separated from Jamaica in 1884. The governor is assisted by an Executive Council and a partly elected Legislative Council.

The colony's economy is dependent upon timber and other forest exports. Agriculture has never been adequately developed. There are no railways, and road development is backward (about 135 mi. surfaced). Most of the population are mestizos of Negro, native Indian and white descent.

The climate is subtropical, with maximum recorded temperature of 98°, and minimum of 50°. Rain falls mostly from May to February, and almost continuously from October through December.

Quebec was founded. France's colonization efforts were not very successful, but French explorers by the end of the 17th century had penetrated beyond the Great Lakes to the western prairies and south along the Mississippi to the Gulf of Mexico. Meanwhile, the English Hudson's Bay Company had been established in 1670. Because of the valuable fisheries and fur trade, a conflict developed between the French and English; in 1713, Newfoundland, Hudson Bay and Nova Scotia (Acadia) were lost to England.

During the Seven Years' War (1756-63), England extended its conquest, and the British general, Wolfe, won his famous victory over Montcalm outside Quebec (Sept. 13, 1759). The Treaty of Paris (1763), put Canada under English control.

At this time the population of Canada was almost entirely French, but in the next few decades thousands of British colonists emigrated to Canada from the British Isles and from the American colonies. Partly to placate the French who were concentrated in Quebec, Canada was divided into Upper (British) and Lower (French) Canada in 1791. In 1840 the two provinces again were joined under one government, and in 1849 the right of Canada to self-government was recognized. By the British North America Act of 1867, the Dominion of Canada was created through the confederation of Upper and Lower Canada, Nova Scotia and New Brunswick, Prince Edward Island

Canadian Governors General and Prime Ministers Since 1867

Term of office	Governor General	Term	Prime Minister	Party
1867-1869	Viscount Monck	1867-1873	Sir John A. Macdonald	Conservative
1869-1872	Baron Lisgar	1873-1878	Alexander Mackenzie	Liberal
1872-1878	Earl of Dufferin	1878-1891	Sir John A. Macdonald	Conservative
1878-1883	Marquess of Lorne	1891-1892	Sir John J. Abbot	Conservative
1883-1888	Marquess of Lansdowne	1892-1894	Sir John S. D. Thompson	Conservative
1888-1893	Baron Stanley	1894-1896	Sir Mackenzie Bowell	Conservative
1893-1898	Earl of Aberdeen	1896(2 mos)	Sir Charles Tupper	Conservative
1898-1904	Earl of Minto	1896-1911	Sir Wilfrid Laurier	Liberal
1904-1911	Earl Grey	1911-1917	Sir Robert L. Borden	Conservative
1911-1916	Duke of Connaught	1917-1920	Sir Robert L. Borden	Unionist
1916-1921	Duke of Devonshire	1920-1921	Arthur Meighen	Unionist-National, Conservative
1921-1926	Viscount Byng			
1926-1931	Viscount Willingdon	1921-1926	W. L. Mackenzie King	Liberal
1931-1935	Earl of Bessborough	1926(3 mos)	Arthur Meighen	Conservative
1935-1940	Baron Tweedsmuir	1926-1930	W. L. Mackenzie King	Liberal
1940-1946	Earl of Athlone	1930-1935	Richard B. Bennett	Conservative
1946-1952	Viscount Alexander	1935-1948	W. L. Mackenzie King	Liberal
1952-	Vincent Massey	1948-	Louis Stephen St. Laurent	Liberal

joined the Dominion in 1873. In 1869 Canada had purchased from the Hudson's Bay Company the vast middle west (Rupert's Land) from which the provinces of Manitoba (1870), Alberta and Saskatchewan (1905) were later formed. In 1871 British Columbia joined the Dominion. The country was linked from coast to coast in 1885 by completion of the Canadian Pacific Railway.

During the formative years between 1867 and 1896, the Conservative Party led by Sir John A. Macdonald governed the country, except during the years 1873-78. In 1896 the Liberal Party took over and under Sir Wilfrid Laurier, an eminent French Canadian, ruled until 1911. In World War I, more than 500,000 Canadian soldiers fought for the Allied cause. After the Treaty of Versailles, Canada, a full-fledged nation, was admitted to the League of Nations and appointed its own representatives in foreign countries. By the Statute of Westminster (1931) the British Dominions, including Canada, were formally declared to be partner nations with Britain, "equal in status, in no way subordinate to each other," and bound together only by allegiance to a common Crown. The Liberal Party under W. L. Mackenzie King won the elections in 1935 and was returned to power in 1940 and 1945 (he had previously served as prime minister from 1921 to 1930, except for three months in 1926). On Nov.

15, 1948, King resigned and was succeeded by Louis Stephen St. Laurent, who was returned as prime minister in the national elections of June 27, 1949.

Newfoundland became Canada's tenth province on March 31, 1949, following a plebiscite held July 22, 1948, in which the people voted by a narrow margin to unite with Canada.

GOVERNMENT. Canada, a self-governing member of the British Commonwealth of Nations, is a federal union of 10 provinces whose powers are laid down in the British North America Act of 1867. The executive powers nominally rest in the hands of the Governor General, who represents the Queen and is appointed by her upon the recommendation of the Canadian Government.

Actually, the Governor General acts only with the advice of the Canadian Prime Minister and the members of the Cabinet, who at the same time sit in the federal Parliament. The Parliament has two houses: a Senate numbering 102 members appointed for life, and a House of Commons numbering 262 members apportioned according to provincial population. Elections are held at least every five years or whenever the party in power is voted down in the House of Commons or considers it expedient to appeal to the people. The Prime Minister is the leader of the majority

party in the House of Commons. Laws must be passed by both houses of Parliament and signed by the Governor General in the Queen's name. Results of Parliamentary elections on June 27, 1949, were as follows: Liberals, 193; Progressive Conservatives, 42; Co-operative Commonwealth Federation, 12; Social Credit, 10; independents, 5.

The members of the Cabinet (July 1952) include Louis St. Laurent (Prime Minister), L. B. Pearson (External Affairs), W. McL. Robertson (Minister without Portfolio), Alphonse Fournier (Public Works), Lionel Chevrier (Transport), Milton Gregg (Labor), Stuart Garson (Justice, Attorney General), R. W. Mayhew (Fisheries), C. D. Howe (Trade and Commerce, Defense Production), J. G. Gardiner (Agriculture), J. J. McCann (National Revenue), George Prudham (Mines and Technical Surveys), P. J. Martin (Health and Welfare), Edouard Rinfret (Postmaster General), D. C. Abbott (Finance), Brooke Claxton (Defense), Hugues Lapointe (Veterans Affairs), R. H. Winters (Reconstruction, Resources and Development), Walter Harris (Citizenship and Immigration) and Gordon Bradley (Newfoundland).

The ten provincial governments are nominally headed by Lieutenant Governors appointed by the federal Government, but the executive power in each actually is vested in a cabinet headed by a prime minister, who is leader of the majority party. In nine of the ten provinces the legislature is composed of a one-house assembly elected by the people for 4 years.

In Quebec there is also a second chamber, called the Legislative Council, composed of nominees of the Provincial Government.

JUDICIAL SYSTEM. The judicial system consists of a supreme court in Ottawa (established in 1875), with appellate jurisdiction, and a supreme court in each province as well as county courts with limited jurisdiction in most of the provinces. The Governor General in Council appoints the judges of these courts.

DEFENSE. Canadian armed forces, consisting of the Army, Royal Canadian Air Force and the Royal Canadian Navy, are under the Ministry of National Defense. Conscription was in effect during World War II, but most of the nearly 300,000 men who saw overseas service were volunteers. Canadian casualties were 104,125, including 41,371 dead.

In 1951, the authorized strength of the army was 43,120; air force, 24,950; navy, 13,400. Increases were projected under a 3-year defense-expansion program. Canadian troops served in Korea. On Jan. 1, 1952, the navy had in active service one light aircraft carrier, 2 cruisers, 11 destroyers, 6 frigates and numerous ancillary craft.

PROVINCES AND TERRITORIES

Province	Land area, sq. mi.	Census, June 1951
Alberta	248,800	939,501
British Columbia	359,279	1,165,210
Manitoba	219,723	776,541
New Brunswick	27,473	515,697
Newfoundland	152,734	361,416
Nova Scotia	20,743	642,584
Ontario	363,282	4,597,542
Prince Edward Island	2,184	98,429
Quebec	523,860	4,055,681
Saskatchewan	237,975	831,728

Territories		
Northwest Territories	1,258,217	16,004
Yukon	205,346	9,096

Provinces	Capital	Prime Minister 1952
Alberta	Edmonton	Ernest C. Manning ¹
British Columbia	Victoria	Byron I. Johnson ²
Manitoba	Winnipeg	D. L. Campbell ²
New Brunswick	Fredericton	John B. McNair ²
Newfoundland	St. John's	Joseph Smallwood ²
Nova Scotia	Halifax	Angus L. Macdonald ²
Ontario	Toronto	Leslie Frost ²
Prince Edward Island	Charlottetown	Walter Jones ²
Quebec	Quebec	Maurice Duplessis ²
Saskatchewan	Regina	T. C. Douglas ²

Territories		
Northwest Territories	Ottawa	H. A. Young ²
Yukon	Dawson	J. E. Gibben ²

¹ Social Credit; ² Liberal; ³ Progressive; ⁴ Union Nationale; ⁵ Co-operative Commonwealth Federation.
^{*} Commissioner.

The Royal Canadian Mounted Police is the constabulary maintained by the federal government. In 1951 it had a strength of about 4,000 men. Its duties include the enforcement of smuggling laws, suppression of traffic in drugs, protection of government buildings and dockyards, and counter-subversive work. It is the sole police force operating in the Northwest Territories and Yukon.

EDUCATION. Control of education was specifically delegated to the provinces by the British North America Act of 1867. Elementary schools in all provinces except Quebec are free, as is secondary education in most provinces. The supreme education authority in Quebec is a council of public instruction with two aides supervising the Roman Catholic and Protestant schools respectively. Fees paid by parents having children of school age help defray the cost of education. In the rest of the provinces

the system is non-denominational, and education for the most part is compulsory for all children between the ages of 8 and 14. Of Canada's 18 universities, 6 are state-controlled and 12 are independent of provincial control. Leading universities are Toronto, which belongs to the first group, and McGill (Montreal), the second group.

VITAL STATISTICS. In 1951 the birth rate was 27.1 per 1,000 population and the death rate 9.0 per 1,000.

The immigration movement reached its peak in 1913, when 402,432 immigrants were enumerated. Immigration fell off sharply during World War I but rose in the postwar years to a peak of 167,723 in 1929. Immigration in 1951, the largest since 1913, totaled 194,391, of whom 32,395 came from Germany and 31,652 from the United Kingdom.

AGRICULTURE. Agriculture, including horticulture, fruit-growing and the raising of stock and poultry, is the largest single industry. Of the total land area, 549,660 square miles, or 15.2 per cent, consists of agricultural land. Canadian farming is based almost entirely on relatively small individual holdings. Canada is one of the world's greatest wheat-exporting countries; production is concentrated in Manitoba, Saskatchewan and Alberta. Canada is also a leading producer of other cereals, the most important in point of value being oats and barley.

CROP ACREAGE AND PRODUCTION

(In thousands, provisional figures)

	Acres		Bushels	
	1950	1951	1950	1951
Wheat	27,021	25,731	461,664	562,395
Oats	11,575	12,065	419,930	492,683
Barley	6,625	8,036	171,393	252,795
Rye	1,168	1,127	13,333	18,007
Corn	306	300	13,839	15,662

Apple growing, carried on in Nova Scotia, southern Quebec and central Ontario, is the chief horticultural activity; other fruit growing regions are the Niagara and Lake Erie districts and southern British Columbia. Sugar beet cultivation is assuming increasing importance, and tobacco is produced in southern Ontario. The production of honey and maple sugar is also important. The estimated value of field crops in 1951 was \$1,977,105,000 (preliminary).

Stock raising and dairy farming have grown greatly since 1920. Ontario and Quebec are the most important dairying provinces. On June 1, 1951, Canada had 9,333,000 cattle, 5,875,000 hogs, 1,963,000 sheep and 1,505,000 horses. Dairy production in 1951 included butter, 128,802 short tons; milk, 8,195,999 tons; cheese (cheddar), 42,630 tons. Wool production was 8,653,000 pounds, greasy basis.

INDUSTRY. Canadian manufactures rely

mainly on domestic raw materials; growing industries which depend largely on materials imported in a raw or semi-finished state include the manufacture of automobiles, sugar and rubber goods as well as the iron and steel industry in Nova Scotia, Quebec and Ontario. The latter two provinces account for more than 80 per cent of all manufactures. The abundance of cheap water power is one of the chief factors in the growth of Canadian industry. Production of steel ingots and castings in 1951 was 3,567,361 short tons; pig iron, 2,552,850 tons; ferroalloys, 250,930 tons. In 1950, the gross value of manufactured products was Can.\$13,813,524,000; there were 35,942 plants which employed 1,183,297 persons. The most important industries by value of output were pulp and paper, meatpacking, nonferrous-metals smelting and refining, sawmills and electrical apparatus.

TRADE. Canada is one of the great trading nations of the world. The bulk of its foreign commerce is in raw or semi-finished products.

Trade statistics (in millions of Canadian dollars):

Year	Imports	Exports	Re-exports
1941	1,448.8	1,621.0	19.5
1942	1,644.2	2,363.8	21.7
1943	1,735.1	2,971.5	29.8
1944	1,758.9	3,440.0	43.1
1945	1,585.8	3,218.3	49.1
1946	1,927.3	3,212.2	27.0
1947	2,573.9	2,774.9	36.9
1948	2,636.9	3,075.4	34.6
1949	2,761.2	2,993.0	29.5
1950	3,174.3	3,118.4	38.7
1951	4,084.9	3,914.5	48.9

In 1951, Canada's principal customers were the U. S. (59%), Britain (16%), Belgium (2.4%), Japan (1.8%) and Union of South Africa (1.3%). Leading suppliers were the U. S. (70%), Britain (10.3%), Venezuela (8.3%), Malaya (1.4%) and Australia (1.1%). The leading exports were newsprint (13.7%), wheat (11.3%), wood pulp (9.3%), planks and boards (8.0%) and nickel (8.5%). Leading imports were petroleum and products (8.5%), automobile parts (4.8%) and farm implements and machinery (4.8%).

COMMUNICATIONS. Because Canada's exports are to a large extent bulky raw materials, cheap water transportation is essential. The country's system of canals, especially those connecting the Great Lakes, forms an integral part of the inland communications system. Canal traffic amounted to 29,325,034 tons in 1951; 16,197,624 tons of freight were carried on the Welland Canal alone.

Railway facilities have been improved in relation to the export of wheat from the prairie provinces and to the development

of the mineral and wood pulp industries in northern Quebec and northern Ontario. About 90 per cent of the Canadian railway length of 43,000 miles is under the control of two systems, the government-owned Canadian National and the privately-owned Canadian Pacific. Canada's principal merchant marine lines are the Canadian Pacific, which operates a subsidiary ocean steamship company, and the Canadian National, which has minor steamship lines under its control. The merchant marine on Dec. 31, 1951, numbered 1,309 steamers and motorships (of over 100 tons) with tonnage of 1,694,692.

On Dec. 31, 1948, Canada had 150,493 miles of surfaced highways and 405,773 miles of nonsurfaced roads. On April 3, 1948, Canada formally took over 1,500 miles of the Alaska highway. Motor vehicles licensed in 1950 numbered 2,600,269.

The Trans-Canada Air Lines, established in 1937, is controlled by the federal government. In 1951, Canadian airlines carried 1,829,072 revenue passengers and flew 584,947,379 passenger-miles. In 1951, Canada had 2,917,000 telephones and, in 1952, 2,313,944 licensed private radio sets.

FINANCE. Recent data are as follows (in millions of Canadian dollars):

	1950-51	1951-52*	1952-53†
Revenue	3,112.5	4,003.1	4,279.0
Expenditure	2,901.2	3,647.4	4,270.0

* Provisional. † Budget estimate.

The net public debt (gross debt less active assets) on Mar. 31, 1952, was reported at \$11,077,600,000, compared to \$11,433,314,948 on Mar. 31, 1951, \$11,644,609,199 on Mar. 31, 1950, and \$3,271,259,647 on Mar. 31, 1940.

TOPOGRAPHY. Covering the northern part of the North American continent and with an area larger than that of the United States, Canada's topography is extremely diversified. The northeastern region, including most of Quebec, northern Ontario and Manitoba, and the Northwest Territories, with Hudson Bay in the center, is an important source of minerals, wood pulp and water power. In the east the mountainous maritime provinces have an irregular coast line on the Gulf of St. Lawrence and the Atlantic. The St. Lawrence plain, covering most of southern Quebec and Ontario, and the interior continental plain, covering southern Manitoba and Saskatchewan and most of Alberta, are the principal cultivable areas. They are separated by a forested plateau rising from Lakes Superior and Huron. Westward toward the Pacific, most of British Columbia, Yukon, and part of western Alberta are covered by parallel mountain ranges including the Rockies. The Pacific border of the coast range is ragged with fjords and channels. The highest point in Canada is

Mt. Logan, 19,850 ft., located in the Yukon.

CLIMATE. Canada has great variations of climate. South of the Gulf of St. Lawrence, the maritime provinces have an average temperature of 40° for the year and over 60° for the summer months. In Quebec and northern Ontario the winters are cold and the summers average from 60° to 65°. In southern Ontario the average summer temperature is 65°, with an occasional rise to 90°. The prairie provinces have a distinctly continental climate with comparatively short warm summers and long cold winters. The west coast has a climate similar to that of the southern coast of England. Northwest and northeast of Hudson Bay the climate is too severe for trees.

HYDROGRAPHY. Canada has an abundance of large and small lakes. In addition to the Great Lakes on the United States border, there are nine others which are more than 100 miles long and 35 which are more than 50 miles long.

The two principal river systems are the Mackenzie and the St. Lawrence. The St. Lawrence with its tributaries is navigable for over 1,900 miles and is the commercial artery of eastern Canada. The northern parts of Alberta and much of northern British Columbia are drained through the Athabaska and Peace Rivers, first north-eastward toward Lake Athabaska and then north through Slave River to Great Slave Lake and finally northwest through the Mackenzie River to the Arctic Ocean. If measured to the head of Finlay River, the Mackenzie has a length of more than 2,500 miles and is navigable for 1,292 miles.

As most of the Canadian rivers have waterfalls on their courses they are of considerable importance as sources of power. Average monthly production of electricity in 1951 was 4,783,000,000 kwh.

MINERALS. Canada's mineral resources are both rich and varied. Mining production in 1951 was valued at \$1,228,005,479. Metals come mainly from two widely separated regions, the mountain ranges of the Pacific coast and the province of Ontario. Copper ore also exists in Quebec, Manitoba and Newfoundland. Production of petroleum (43,096,800 barrels in 1951) centers in Alberta. There are important deposits of uranium in the Northwest Territories.

MAJOR MINERALS

Mineral	1950	1951*
Asbestos (tons)	875,344	967,375
Coal (tons)	19,139,112	18,750,000
Copper (lb.)	528,418,296	540,967,068
Gold (oz.)	4,441,227	4,328,931
Lead (lb.)	331,394,128	304,999,067
Nickel (lb.)	247,317,867	274,535,580
Silver (oz.)	23,221,431	24,244,949
Zinc (lb.)	626,454,598	667,871,787

* Provisional.

FORESTS, WILD LIFE AND FISHERIES.

The total area of land covered by forests is estimated at 1,290,960 square miles, of which 435,000 are productive and accessible. Production of sawn lumber was estimated at 8,600,000,000 bd. ft. in 1951. The manufacture of pulp and paper is one of the leading industries. Newsprint production in 1951 was estimated at 5,516,000 tons; exports were 5,112,061 tons, of which 4,774,947 tons went to the U. S.

Fishing, Canada's oldest industry, is carried on along the Atlantic and Pacific coasts and on the inland lakes. The most important fish are salmon, cod, herring, mackerel, lobsters, sardines, halibut, haddock, whitefish and trout. The total value of fishery production in 1950 (excluding Newfoundland) was \$152,108,597; the catch totaled 14,912,234 cwt.

Fur farming and trapping is also important. Trapping is carried on principally in the North while Quebec, Ontario and Alberta lead in the number of fur farms. The more important animals raised on fur farms are fox, muskrat, beaver, mink, raccoon and martin. For the year ending June 30, 1950, 7,377,491 pelts valued at \$23,184,033 were taken. Annual fur auctions are held at Montreal, Winnipeg, Vancouver, Edmonton and Regina.

FALKLAND ISLANDS AND DEPENDENCIES

Governor: Sir Miles Clifford.

Capital: Stanley (population 1,246).

Foreign trade (1950): exports, \$7,145,373; imports, \$6,262,665. Chief export: whale oil.

This sparsely inhabited Crown colony consists of a group of islands in the south Atlantic about 250 miles east of the South American mainland. Dependencies include all islands and Antarctic territory between 20° and 50° w. long., south of 50° s. lat., and between 50° and 80° w. long., south of 58° s. lat. The chief industry is sheep raising, and apart from the production of wool, hides and skins and tallow, there are no known resources. The whaling industry is carried on successfully from South Georgia Island; 148,166 barrels of whale oil were exported in 1950.

The islands were discovered by John Davis in 1592. East Falkland Island was claimed for France in 1764, and West Falkland Island for Britain the following year. The French settlement later passed to Spain, and in 1829 was colonized by Argentina. The Argentines were ejected by the British in 1833 and have since reasserted their claim to the islands many times. In 1914 the Battle of Falkland Islands was fought nearby, resulting in a British victory. During World War II, Stanley, the only town, was an important naval base.

The climate is equable though relatively cold, with temperatures averaging about 47° in midsummer and 37° in midwinter.

JAMAICA AND DEPENDENCIES—Status: Colony.

Capital: Kingston (population 201,911).

Governor: Sir Hugh Foot.

Foreign trade (1951)*: exports, \$16,905,073; imports†, \$21,680,401. Chief exports: sugar (35%), bananas, rum.

Agricultural products (1951): sugar (267,928 long tons), bananas (4,080,843 stems), rum (2,015,303 gal.), citrus fruits, ginger, coffee, pimento.

* Excluding dependencies. † Jan.-Sept.

Jamaica, the largest island in the British West Indies (4,470 sq. mi.), is eighty miles south of the eastern end of Cuba. Its island dependencies include the Turks and Caicos Islands (about 600 mi. N.E.), Cayman Islands (about 300 mi. N.W.) and two uninhabited cays. It was discovered by Columbus in 1494 and remained in Spanish possession until 1655, when it was taken by the British. According to the constitution of Nov. 20, 1944, the Governor is assisted by a House of Representatives of 32 popularly elected members; a Legislative Council (upper house) of 15 members and an Executive Council of 10 members, 5 of whom are elected by the House of Representatives.

Sites were leased for 99 years to the U. S. in 1940 for naval and air bases.

The colony's economy depends on agriculture, and about 200,000 acres are under cultivation. Sugar took the place of bananas as the chief crop during World War II. Jamaica is virtually the sole source of pimento. Manufacture of consumer's goods has increased considerably in recent years.

Rail mileage totals 299, and highways 4,594. Jamaica's favorable climate makes it attractive to tourists. Temperatures at Kingston range from about 71° to 88°, but are considerably cooler inland. The rainy seasons are in May and October.

LEEWARD ISLANDS—Status: Colony.

Capital: St. John's (population 10,000).

Governor: Sir Kenneth Blackburne.

Foreign trade (1950): exports, BWI\$12,034,354; imports, BWI\$13,387,687. Chief export: sugar.

Agricultural products: sugar, cotton, coconuts, citrus fruits, tobacco.

The Leeward Islands constitute a federated group southeast of Puerto Rico; they are divided into four presidencies—Antigua (108 sq. mi.) and dependencies (63 sq. mi.); Virgin Islands (67 sq. mi.); St. Kitts (68 sq. mi.) and Nevis (50 sq. mi.) and dependency (34 sq. mi.); and Montserrat (33 sq. mi.). The whole federation has a nominated Executive Council and a partially elected Legislative Council. Each presidency also has a local administration. In 1940, the U. S. acquired a 99-year lease

on sites for a naval and air base on Antigua. The islands are agricultural.

Temperatures average about 76° in January and 81° in August; rainfall is moderate throughout the year.

TRINIDAD AND TOBAGO—Status: Colony.

Capital: Port of Spain (population 108,273).

Governor: Maj. Gen. Sir Hubert Rance. Foreign trade (1951): domestic exports, BWI\$205,749,147; re-exports, BWI\$7,853,800; imports, BWI\$214,745,814. Chief exports: petroleum (70%), sugar.

Agricultural products: sugar (1951: 140,668 long tons), cacao, coconuts.

Minerals (1951): petroleum (20,842,716 barrels), asphalt (154,705 long tons).

The islands of Trinidad and Tobago are 16 and 21 miles, respectively, off Venezuela just north of the Orinoco delta. Both were discovered by Columbus in 1498, and remained Spanish possessions until 1797, when the British took them. They are administered by a governor. In 1941 the United States was granted 99-year leases on the islands for naval and air bases covering a total of 25,000 acres.

The soil is rich for the growing of tropical products; sugar and cacao are the principal crops. Trinidad is the second leading oil producer of the Commonwealth, and the world's most notable source of asphalt, found in Pitch Lake, thirty-eight miles southeast of Port of Spain. Port of Spain is the chief port, and a transshipment point for Orinoco trade. About a third of the population is East Indian.

Trinidad's climate is tropical, with a mean annual temperature of 80°. The rainy season is from May to January (except October).

WINDWARD ISLANDS—Status: Colony.
Capital: St. George's (population 5,755).
Governor: Sir Robert D. H. Arundell.
Foreign trade (1950): exports, BWI\$13,407,527; imports, BWI\$18,918,956.

Agricultural products: arrowroot (St. Vincent), nutmeg (Grenada), mace (Grenada), cacao.

These islands, four in number, form the southern portion of the Lesser Antilles in the Caribbean; they extend approximately 250 miles from the French colony of Guadeloupe on the north to the British colony of Trinidad on the south. Their total area of about 820 square miles divides as follows: Dominica, 304; St. Lucia, 233; St. Vincent, 150; Grenada, 133. The four units are not federated and have no common legislature or laws, although they do have a common governor.

More than two-thirds of the inhabitants are Negroes, nearly one-third mulatto, and about 2 per cent white. Agriculture is the only industry. St. Vincent has a virtual monopoly on the world supply of arrow-

root, and Grenada furnishes about 40 per cent of the world's nutmeg.

Climate is pleasant, although rainfall is heavy, particularly in summer. The temperature in January averages 77°; in September, 80°.

ASIA

ADEN—Status: Colony and Protectorate.
Governor: Tom Hickinbotham.

Foreign trade (1950): exports, Rs. 258,032,655; imports, Rs. 557,842,907.

The British colony and protectorate of Aden is situated on the volcanic southern tip of the Arabian peninsula, along the Gulf of Aden. The colony (port) of Aden was annexed to Britain in 1839 and was part of the Bombay Presidency until 1932, when it became a separate province with the chief commissioner responsible to the Indian government. In 1937 it was transferred from Indian to Imperial control as a Crown colony. It is administered by a governor and commander in chief aided by an Executive Council. The 20-odd sultans who rule their respective territories in the protectorate are responsible to him.

The island of Perim (5 sq. mi.), the Kuria Muria Islands, and the island of Kamaran (22 sq. mi.) are attached administratively to Aden.

Aden colony is essentially a transshipment point and bunkering station and is also the commercial center for the Yemen and the African coast opposite. Aden airport is a station on the Khartoum-Karachi air route. Agriculture is unimportant except for some coffee and tobacco, and manufactures are limited to salt, cigarettes and native dhows.

BAHREIN ISLANDS—Status: Protectorate and Sheikdom.

British Political Agent: C. J. Pelly.

These islands form an archipelago off Arabia's east coast and are nominally an independent sheikdom, ruled by Sheikh Sir Salman bin Hamad al Khalifah, but are actually a protectorate of Great Britain, which is represented by a political agent. They are the center of the Persian Gulf pearl fisheries and the site of an airport on the London-Australia route. The concession for exploitation of petroleum deposits, discovered in 1932, is held by an affiliate of U. S.-owned interests. Output in 1951 was 10,994,344 barrels. Agriculture is of some importance. Most of the trade of the Saudi Arabian provinces of Nejd and Hasa pass through Bahrain. Chief exports are rice, cotton goods, pearls, coffee and tea. The capital and principal port is Manama (pop. 30,000) on Bahrain.

BORNEO

COLONY OF NORTH BORNEO—Status: Colony.

Capital: Jesselton (population 37,511).

Governor: Sir Ralph Hone.

Foreign trade (1951)*: exports, Str.\$113,708,195; imports, Str.\$70,229,477. Chief export: rubber (75%).

Agricultural products: rubber (1951: 21,698 long tons), rice, copra.

Forest products: timber, catch, rattans.

* Excluding transit trade.

The Colony of North Borneo, constituting the extreme northern portion of the island of Borneo, consists largely of highlands and occasional open valleys and plateaus. The territory was a British protectorate administered under a royal charter by the British North Borneo Company from 1881 until July 15, 1946, when it assumed the status of a Crown colony. It was occupied by Japanese troops from 1942 until 1945. Labuan (pop. 9,000; area, 30 sq. ml.), a small island off the North Borneo coast, was transferred from the jurisdiction of the Straits Settlements to that of North Borneo in 1946.

The population is comprised largely of aboriginal tribesmen living on a very primitive level of culture and social organization. Mineral resources are believed to be considerable, but the colony's income is based on agricultural and jungle produce.

The climate of North Borneo is tropical, with a mean annual temperature range of only 3°, although extremes of 64° and 91° have been recorded. The total rainfall varies between 60 and 180 inches annually and is heaviest in the last three months.

BRUNEI—Status: Protectorate.

Capital: Brunei (population 16,000).

Sultan: Omar Ali Saifuddin.

British Resident: J. C. H. Barcroft.

Foreign trade (1950): exports, Str.\$205,388,521; imports, Str.\$60,265,034. Chief export: petroleum (97%).

Agricultural products: rice, rubber.

Brunei lies on the northwestern coast of Borneo, entirely surrounded by Sarawak. It was placed under British protection in 1888, and in 1906 a treaty was concluded whereby the native sultan yielded administration of the state to a British resident. The governor of Sarawak was appointed high commissioner for Brunei in 1948. Japanese troops occupied Brunei from 1942 until 1945.

Most of the inhabitants are Malays. The bulk of the population lives in and around the capital, situated on the Brunei River 9 miles from its mouth. The interior is largely forested and contains rich timber. All petroleum is exported to Sarawak for refining (exports 1950: 4,011,463 long tons).

Brunei's climate is comparable to that of North Borneo, except that the wet season is longer, often lasting until March.

SARAWAK—Status: Colony.

Capital: Kuching (population 37,949).

Governor: Sir Anthony F. Abell.

Foreign trade (1951): exports, Str.\$508,349,436; imports, Str.\$383,745,457. Chief exports: petroleum (60%), rubber (30%).

Agricultural products: rubber (1951: 4,760 short tons), rice, sago, pepper.

Minerals: petroleum, gold, silver, coal.

Sarawak extends along the northwestern coast of Borneo for about 500 miles. In 1841 part of the present territory was granted by the sultan of Brunei to Sir James Brooke. The state, enlarged by additional concessions made between 1861 and 1905, continued to be ruled by members of the Brooke family until the Japanese occupation in Dec., 1941. A British protectorate since 1888, Sarawak became a Crown colony July 15, 1946, through agreement between the British government and the then ruling rajah, Sir Charles Vyner Brooke.

The colony is mountainous and very well watered; inland communication is largely by water. Most of the inhabitants are Malays, Dyaks and Chinese. The principal mineral is petroleum, which was discovered at Miri in 1909 and subsequently worked by Sarawak Oilfields, Ltd. A large proportion of the petroleum exports reflects petroleum imported from Brunei and refined in Sarawak. There are also important forest resources. Under the enlightened rule of the Brookes, Sarawak had been developed into a highly organized community prior to the Japanese invasion.

Sarawak's climate, though tropical, is healthful; the temperature seldom rises above 90° and falls to 70° at night. Average annual rainfall at Kuching is 160 inches.

Ceylon

(Member of British Commonwealth)

Area: 25,332 square miles.

Population (est. June 30, 1951): 7,743,000 (Sinhalese, 68%; Tamil, 22%; Moors, 6%; Burghers and Eurasians, .5%; Europeans [5,292] and others, 3.5%).

Density per square mile: 305.7.

Governor General: Lord Soulbury.

Prime Minister: Dudley Senanayake.

Principal cities (est. 1950): Colombo, 387,900 (capital); Jaffna, 63,400 (fibers, tobacco); Dehiwala-Mt. Lavinia, 65,700 (suburb of Colombo); Kandy, 56,200 (tea).

Monetary unit: Ceylonese rupee.

Languages: English, Sinhalese, Tamil.

Religions (est.): Buddhism, 60%; Hinduism, 20%; Christianity, 10%; Mohammedanism and others, 10%.

HISTORY. The island of Ceylon lies in the Indian Ocean 12 miles southeast of the southern tip of India. Known to the Greeks and Romans as Taprobane and to Mohammedan seamen as Serendib, it is reputed to have been invaded from India in 504 B.C. by Vijaya, the first Sinhalese king. Buddhism was introduced in the third century B.C. In subsequent centuries the island was invaded and occupied several times by Indian princes.

Ceylon was visited in 1505 by the Portuguese, who found the island divided into seven native kingdoms. The Portuguese settlers were ousted in the middle of the 17th century by the Dutch, who in turn were defeated by an English force in 1796. Ceylon became a Crown colony in 1796, and was formally ceded to England by the treaty of Amlens in 1803.

The Donoughmore constitution of 1931 vested control over most local affairs in a state council, which had an elected majority. The arrangement proved generally unacceptable, and after World War II a commission headed by Lord Soulbury drafted a new constitution. Elections held in Aug. and Sept., 1947, were won by the United Nationalists, a center group. The Ceylon Independence Act received royal assent on Dec. 10, 1947, and on Feb. 4, 1948, Ceylon became a full-fledged, self-governing dominion.

GOVERNMENT. Under the new constitution, Ceylon's government is headed by the Crown-appointed governor general, who is advised by a council of ministers headed by the prime minister. The bicameral parliament consists of a House of Representatives of 101 members elected by full adult suffrage, and a Senate composed of 15 elected and 15 appointed members.

Close relations in defense matters are maintained with the United Kingdom under terms of the 1947 defense agreement, which permits the stationing of British troops on the island. The Royal Navy has an extensive base at Trincomalee.

SOCIAL AND ECONOMIC CONDITIONS. Free education is available in public schools from kindergarten to university, and the level of literacy is high. In 1949 there were 5,610 Sinhalese and Tamil schools, with 1,010,184 pupils and 631 English and bilingual schools with 237,678 pupils. The University of Ceylon (founded in 1942) had 1,850 students in 1949-50.

Sinhalese, spoken by approximately two-thirds of the population, is an Aryan tongue closely related to Pali.

Ceylon is heavily dependent on food imports, particularly rice, the staple food. A large part of the cultivated land (25% of the total area) is devoted to the chief export crops—tea (1951: 143,460 metric tons), rubber (106,680 metric tons) and coconut products, all of which are grown for the most part on plantations. Other crops include rice (273,400 tons paddy), fruits, cinnamon and citronella. In 1951, there were 1,112,360 cattle, 567,672 buffalo and 411,320 goats.

Recent foreign-trade data are as follows (in millions of Ceylonese rupees):

	1949	1950	1951
Exports	1,063	1,563	1,904
Imports	1,029	1,167	1,559

Chief exports by value in 1951 were tea (42%), rubber (31%) and coconut products (17%). Leading customers were Britain (31%), the U. S. (10%) and Australia (7%); leading suppliers, Britain (22%), Burma (15%) and India (12%).

Ceylon is well served by highways and the government railway, which total 18,560 and 894 miles respectively. A fast ferry connects railheads in India and Ceylon.

Recent financial data are as follows (in millions of Ceylonese rupees):

	1949-50	1950-51	1951-52*
Revenue	623.3	910.2	984.4
Expenditure	563.2	804.9	982.8

* Budget estimate.

The net public debt on Sept. 30, 1950, was 520,300,000 rupees.

NATURAL FEATURES AND RESOURCES. Most of the island is flat, but mountains in the south central part rise to 8,000 feet. The island extends to a maximum of 270 miles north and south, and 140 miles east and west. There are numerous rivers, the longest of which is the Mahaweli-Ganga (206 miles).

Mineral resources include graphite (plumbago) (1951 exports: 12,621 metric tons), gem stones, mica, magnesite and vanadium; uranium deposits have been reported.

A distinctive feature of Ceylon's climate is the monsoon, which appears in May and in October-November. Annual rainfall varies from 40 inches in the northeast to more than 200 in the southwest. The mean annual temperature at Colombo is 80.5°.

MALDIVIVE ISLANDS. These islands, a group of 12 coral atolls, are located about 400 miles to the southwest of Ceylon. The population, almost entirely Mohammedan, is about 100,000. They were reported to have adopted a republican form of government in 1952. Fishing and coir making are the leading industries.

CYPRUS—Status: Colony.

Capital: Nicosia (pop. 1950: 38,195).

Governor: Sir Andrew B. Wright.

Foreign trade (1950): exports (including re-exports), £11,039,039; imports, £13,474,290. Chief export: copper concentrates.

Agricultural products: barley, wheat, potatoes, wine, fruit.

Minerals: copper ore (concentrates), pyrite ore.

Cyprus, third largest island in the Mediterranean, is roughly equidistant from Asia Minor to the north and Syria to the east. The site of early Phoenician and Greek colonies, it passed in 1571 from the rule of Venice to that of the Ottoman Empire, under which it remained until 1878, when it was ceded to Great Britain for administrative purposes. On the outbreak of hostilities with Turkey in World War I

(Nov. 5, 1914), the island was formally annexed to Great Britain.

The governor is advised by a nominated Executive Council, but he alone possesses the lawmaking power.

The people are mainly Greeks and Turks, although there is an Armenian colony and a distinct, though small, Latin colony. More than 80 per cent of the population is Christian. Agriculture is the principal industry. Sponge fishing is also important, as well as copper mining.

The mean annual temperature is about 69°; annual rainfall averages about 19 inches. A cool, wet season lasts from October to March.

HONG KONG—Status: Colony.

Capital: Victoria (population 767,000).

Governor: Sir Alexander Grantham.

Foreign trade (1951): exports (in Hong Kong dollars), \$4,433,028,000; imports, \$4,870,315,000. Chief export: textiles.

Agricultural products: rice, sugar cane. Major industries: shipbuilding, rope making, cement, sugar refining, textiles.

The colony of Hong Kong comprises the island of Hong Kong (32 sq. mi.), Stonecutters' Island, and the Kowloon peninsula and the New Territories on the adjoining mainland. The island of Hong Kong, located at the mouth of the Canton River about 90 miles southeast of Canton, was ceded to Britain in 1841.

Stonecutters' Island and Kowloon were annexed in 1860, and the New Territories, which are mainly agricultural lands, were leased from China in 1898 for 99 years. Hong Kong was attacked by Japanese troops Dec. 7, 1941, and surrendered the following Christmas Day. It remained under Japanese occupation until Sept., 1945.

Possessing an excellent natural harbor 17 miles in extent, the only safe deep-sea anchorage between Shanghai and Indo-China, Hong Kong is the entrepôt for trade throughout southern China and the western Pacific. Re-exports normally constitute about two-thirds of the imports and nine-tenths of exports. The colony is also an important British military and naval base.

The cities of Victoria and Kowloon contain the greater part of the population, which is overwhelmingly Chinese. Besides those Chinese engaged in agriculture or industry, a large population lives in sampans or junks either in Victoria Harbour or neighboring bays, supporting itself by fishing or by laboring on the wharves. About 20 per cent of the total area of Hong Kong is under cultivation, mostly in the New Territories. Manufacture of consumer's goods, both for local consumption and for export, is also important.

Hong Kong has an agreeable climate, although violent typhoons sometimes descend upon the colony. The average annual temperature is 72°, ranging from 59° in

February to 82° in July. The summer is the rainy season.

MALAYAN FEDERATION and SINGAPORE—Status: Protectorates and Crown Colony.

Capital: Singapore (population 1947: 441,885).

Federation Capital: Kuala Lumpur (population 1947: 176,195).

Commissioner General in Southeast Asia: Malcolm Macdonald.

High Commissioner of Malayan Federation: Gen. Sir Gerald Templer.

Governor of Singapore: John F. Nicoll. Foreign trade (1951): exports, Str.\$6,076,478,000; imports, Str.\$4,756,058,000. Chief exports: rubber (65%), tin (10%).

Agricultural products: rubber (1951: 605,346 long tons), rice, coconuts.

Minerals: tin ore (1951: 57,167 long tons), iron ore (846,803 tons), tungsten, bauxite, manganese ore, coal.

Forest products: timber, damar, jelutong.

British Malaya consists of semi-independent states occupying most of the Malay peninsula and the island of Singapore off the peninsula's southern tip, together with several smaller islands. The native states were brought under British administration by a process of commercial and political exploitation in the late 19th and early 20th centuries. Singapore, founded in 1819 by Sir Stamford Raffles, had been developed into the principal British naval base in the Far East prior to World War II. Japanese troops invaded the Malayan States in December, 1941, and captured Singapore from the mainland February 15, 1942.

By Orders in Council effective April 1, 1946, the Malayan Union was formed from —the former "Federated Malay States" Perak, Pahang, Selangor, Negri Sembilan —the former "Unfederated Malay States" —Johore, Trengganu, Kelantan, Kedah and Perlis—and all parts of the former "Straits Settlements" except Singapore—thus including Penang and Malacca. The small island of Labuan, off Borneo, was transferred to jurisdiction of North Borneo. The Crown colony of Singapore, comprising the island of Singapore and its dependency, Christmas Island, remained outside the Malayan Federation. The Cocos or Keeling Islands, a former dependency, were transferred to Australian control in 1951.

After vigorous opposition, this arrangement was modified on Feb. 1, 1948, and the Malayan Union was replaced by the Malayan Federation, which has a federal executive and a federal legislative council presided over by the high commissioner. British influence in the affairs of the nine native states is limited to defense and foreign affairs. The sultan of each state has undertaken to promulgate a written con-

stitution for his state. Singapore remains a Crown colony.

The Commissioner General in Southeast Asia is charged with the coordination of administration in the Malayan Federation, Singapore, Sarawak, North Borneo and Brunei.

Since June, 1948, a considerable number of British and other troops have had to be stationed in the area to cope with Communist-led guerrillas. About 50 per cent of the population of the Federation is Malayan and 38 per cent Chinese; about 70 per cent of the population of the colony of Singapore is Chinese.

Rubber and tin form the basis of the area's prosperity. Over 60 per cent of the cultivable area is devoted to the growing of rubber, and prewar production accounted for 40 per cent of the world supply. Production recovered rapidly after the war. In 1940 Malaya produced 33.2 per cent of the world's output of tin; postwar recovery of the industry was slower than in the case of rubber, although by 1949 Malaya was again the world's chief producer.

The climate of Singapore, principal city of the area, is hot and humid, with practically no seasonal change; mean average temperature is 80°. The average number of rainy days is about 173.

India (Republic)

Area: 1,220,099 square miles (including Kashmir, 82,258 square miles).

Population (census 1951)*: 356,891,624.† (Hindu [predominant], Moslem, Sikh, Christian, Buddhist).

Density per square mile: 318.7‡

President: Rajendra Prasad.

Prime Minister: Pandit Jawaharlal Nehru.

Principal cities (census 1951)*: Bombay, 2,840,911 (seaport; cotton and textiles); Calcutta, 2,549,790 (chief port); Madras, 1,429,985 (seaport); Hyderabad, 1,085,074 (trade center); Delhi, 914,634 (manufacturing); Ahmedabad, 788,310 (manufacturing); Bangalore, 726,170 (manufacturing); Kanpur (Cawnpore), 704,536 (textiles); New Delhi, 279,063 (capital).

Monetary unit: Rupee.

Principal languages: English (official), Hindi, Marathi, Gujarati, Punjabi, Telugu, Bengali, Tamil, Kanarese.

* Provisional. † Excluding Kashmir (est. 1950: 4,370,000) and tribal areas of Assam (est. 1951: 500,000). ‡ Excluding Kashmir.

HISTORY. The Republic of India is one of the largest, richest and most populous nations in the world. A sovereign republic within the Commonwealth of Nations, it contains most of pre-1947 India's industrial wealth and natural resources.

The Aryans or Hindus who invaded India between 2400 and 1500 B.C. from the northwest found a land already well civilized. Buddhism, founded in the 6th cen-

tury B.C., had spread through northern India. The first exact date in Indian history is 327 B.C., the year that Alexander the Great invaded India. Meanwhile India continued to be divided into scores of rival states.

In 1526, Mohammedan invaders founded the great Mogul empire, centered on Delhi, which lasted at least in name until 1857. Akbar the Great (1542-1605) strengthened this empire and became the ruler of a greater portion of India than had ever before acknowledged the suzerainty of one man. The long reign of his great-grandson, Aurangzeb (1658-1707) represents both the culmination of Mogul power and the beginning of its decay.

Vasco da Gama, the Portuguese explorer, visited India first in 1498, and for the next hundred years the Portuguese had a virtual monopoly on trade with the subcontinent. Meanwhile, the English founded the East India Company, which set up its first factory at Surat in 1612 and began expanding its influence, fighting against the Indian rulers and the French, Dutch and Portuguese traders simultaneously.

Bombay, taken from the Portuguese, became the seat of English rule in 1687. The defeat of French and Mohammedan armies by Lord Clive in the decade ending in 1760 laid the foundation of the British Empire in India. From then until 1858, when the administration of India was formally transferred to the British Crown following the great mutiny of native troops in 1857, the East India Company was constantly occupied with the suppression of native uprisings and the extension of British rule.

After World War I, in which even the Mohammedan states of India sent troops to fight beside the Allies, Indian nationalist unrest rose to new heights under the leadership of a little Hindu lawyer, Mohandas K. Gandhi, called Mahatma Gandhi. His tactics, of a politico-religious nature, called for non-violent revolts against British authority. He soon became the leading spirit of the all-India Congress Party, which was the spearhead of Indian revolt against British rule. In 1919 the British gave added responsibility to Indian officials, and by an act passed in 1935 India was given a federal form of government and a measure of self-rule.

During the 1940's the policy of both the wartime coalition government of Britain and later the Labour Government envisaged an unpartitioned India as a self-governing federal dominion including both British India and the native states. In 1942, with the Japanese pressing hard on the eastern borders of India, the British war cabinet decided to send Sir Stafford Cripps to India to try to reach a political settlement with nationalist leaders. The mission failed. Shortly thereafter the Congress

POLITICAL SUBDIVISIONS OF REPUBLIC OF INDIA, 1952

Provinces	Area, sq. mi. (approx.)	Population, census 1951		Area, sq. mi. (approx.)	Population, census 1951
Assam	49,473	9,129,442*	Centrally administered areas		
Bihar	70,368	40,218,916	Ajmer-Merwara	2,400	692,506
Bombay	111,394	35,943,559	Bhopal	6,921	838,107
Madhya Pradesh	130,475	21,327,898	Bilaspur	453	127,566
Madras	127,610	56,952,332	Coorg	1,593	229,255
Orissa	59,869	14,644,293	Cutch	8,461	567,825
Punjab	35,684	12,638,611	Delhi	574	1,743,992
Uttar Pradesh	112,523	63,254,118	Himachal Pradesh	11,254	989,437
West Bengal	28,215	24,786,683	Manipur	8,620	579,058
States and Unions of States			Tripura	4,049	649,930
Hyderabad	82,313	18,652,964	Vindhya Pradesh	24,610	3,577,431
Kashmir	82,258	4,370,000†	Territories and other areas		
Madhya Bharat	46,273	7,941,642	Andaman and		
Mysore	29,458	9,071,678	Nicobar Islands	3,143	30,963
Patiala and			Sikkim‡	2,745	135,646
East Punjab	10,119	3,468,631			
Rajasthan	128,356	15,297,979			
Saurashtra	31,885	4,136,065			
Travancore- Cochin	9,155	9,265,157			

* Excluding tribal areas with estimated population of 560,000. † Estimated population 1950; status in dispute with Pakistan. ‡ Himalayan state under Indian protection.

Party took the position that the British must quit India. In August 1942, fearing mass civil disobedience, the Government of India carried out widespread arrests of Congress leaders including Gandhi, Jawaharlal Nehru and Maulana Abul Kalam Azad, president of the Congress Party. Sections of the nationalist movement, mostly under the leadership of the socialist wing, went underground.

Gandhi was released in May, 1944, and other leaders later. Negotiations for a settlement were resumed and they proved fruitless until the British Labour Government sent a cabinet mission to India in 1946 consisting of Lord Pethick-Lawrence, A. V. Alexander and Cripps. The mission obtained the agreement of the Congress Party and Mohammed Ali Jinnah's Moslem League to a long-term plan for a constitution based on three separate groups of provinces with a minimal center. However, agreement was not reached on an interim government and the Moslem League later reverted to its position of unconditional partition. Finally, in February, 1947, the Labour Government announced its determination to transfer power to "responsible Indian hands" by June, 1948, even if a constitution had not been worked out by that time.

With the appointment at the same time of Lord Mountbatten as Governor General, events moved swiftly. By early June, 1947, agreement was reached on the partitioning of India along religious lines (a plan previously opposed by the predominant Hindus and by Britain) and on the splitting of the provinces of Bengal and the Punjab, which the Moslems had claimed in their entirety.

The Indian Independence Act, passed quickly by both houses of the British Parliament, received royal assent on July 18, 1947, and on Aug. 15 the Indian Empire, united under British rule for almost a century, passed into history.

Under the leadership of Pandit Jawaharlal Nehru, the new nation quickly took its place in world councils as a self-governing state. At home the nation pursued a policy of integration and reorganization designed to place effective power in the hands of the central government, which was faced at the outset by widespread communal rioting climaxed by the assassination of Gandhi, the great Hindu spiritual leader, on Jan. 30, 1948.

GOVERNMENT. Since Jan. 26, 1950, India has been a sovereign republic within the Commonwealth of Nations—a status approved by the other Commonwealth nations at London in April, 1949, on the condition that India recognize the King as head of the Commonwealth. Under the constitution adopted by the Constituent Assembly on Nov. 26, 1949, India has a parliamentary type of government. The bicameral parliament is composed of the Council of States (216 members—204 chosen by constituent states and 12 by the President) and the House of the People (497 members—489 elected directly by popular vote for 5-year terms and 8 chosen by the President). The President is elected for a five-year term by an electoral college composed of parliament and the elected members of the state legislatures. The cabinet, headed by the prime minister, administers the government and is collectively responsible to the House of the People. The constituent states have their

own governors and popularly elected legislatures.

In national elections held between Oct. 1951 and Feb. 1952, the Congress party won 363 of the 489 elective seats in the House of the People, Independents 36, Communists and allies 27, Socialists 12, others 51.

NATIVE STATES. Most of the 560-odd native states and subdivisions of pre-1947 India acceded to the new nation, and the central government pursued a vigorous policy of integration. This took three forms: (1) merger into adjacent provinces (230 states with an area of 110,700 sq. mi. and a population of 18,200,000), (2) conversion into centrally administered areas (8 states), and (3) grouping into unions of states (304 states with an area of over 236,000 sq. mi. and population of 37,600,000) of which there are six, in addition to the single states of Hyderabad, Mysore and Kashmir. The unions of states and the latter three states have been assimilated to the level of provinces, and have fully representative forms of government, subject to the power of the central government.

The status of the large princely state of Jammu and Kashmir on the northwest frontier is in dispute with Pakistan. It is 85 per cent Moslem, but its Hindu ruling prince acceded to India, which took over administration following invasion by Moslem troops in late 1947. The U. N. Security Council voted on April 21, 1948, to hold a plebiscite in the area, but, largely because of mutual distrust between India and Pakistan, arrangements have not been made for holding it.

DEFENSE. In the division of the British Indian Army after the transfer of power, India received 45 regiments approximating 250,000 men. Plans were announced late in 1950 to reduce the strength of the then 306,000-man army, the reduced force to be highly mobile.

The division of the Royal Indian Air Force gave India 1 transport and 7 fighter squadrons. The Indian navy has 1 cruiser (ex-H.M.S. *Achilles*), 3 destroyers, 4 sloops, 2 frigates, 12 minesweepers and several smaller vessels. Almost all the senior officers in the three services are now Indian.

EDUCATION. Plans were under way in 1951-52 for extensive expansion and modernization of all branches of education, with emphasis on technological training. Detailed data, however, were not available. In 1950 there were 26 teaching and affiliating universities. English is being replaced as the language of instruction by Indian languages.

AGRICULTURE. Over 200,000,000 acres are under cultivation, but India probably will continue to be a food-deficit area for

several years. Rice is the staple food crop; cotton, tea and jute are important cash crops. Final production estimates for the crop year 1950-51 included rice, 31,074,000 metric tons paddy; wheat, 6,320,000 tons; barley, 2,187,000 tons; tea, 274,000 tons; sesame, 427,700 tons; cottonseed, 1,186,000 tons; cotton, 3,300,000 bales of 400 lb. each; jute, 3,301,000 bales of 400 lb. each.

In 1951 there were 180,200,000 cattle and in 1950 39,000,000 sheep; in 1945 (present area), 556,000 horses, 46,469,000 goats, 40,610,000 buffalo and 193,000 camels.

MANUFACTURING. The republic retained almost all the industrial facilities of British India and is among the ten leading industrial nations of the world. Cotton and jute manufacturing are the two largest industrial activities, the former concentrated largely in Bombay and the latter in Calcutta. The provinces of West Bengal and Bombay are the two most important areas of industrial concentration, with Madras ranking third in importance. In 1950, upwards of 850 cotton mills produced 1,174,000,000 lb. of yarn and 3,665,000,000 yards of cloth. Processing of sugar is of great importance; in 1950, 142 factories produced 976,000 tons. About 90 per cent of the world's supply of jute is processed in the republic. The annual steel capacity is 1,264,000 tons, of which the huge Tata Works in Bihar account for 850,000. Total production in 1951 was 1,524,000 metric tons; that of pig iron and ferroalloys, 1,848,000 metric tons. Production of silk and woolen goods, vegetable oils, colr yarn, paper, matches, salt, cement, leather and shoes, and heavy chemicals is also important.

COMMUNICATIONS. The division of the British Indian railway system gave the republic 33,865 miles of track, all under government control. The chief ports are Bombay and Calcutta. According to *Lloyd's Register*, the merchant marine had 175 steamers and motor ships (100 tons and over) aggregating 451,905 gross tons on June 30, 1951. Roads in 1948 totaled 296,438 miles. In 1951, airlines flew approximately 265,000,000 passenger-miles.

TRADE. India is primarily an importer of finished manufactured goods and an exporter of raw materials and semimanufactured products. Recent trade data are as follows (in millions of rupees):

	1949-50	1950-51	1951-52*
Exports	5,051	6,108	7,196
Imports	6,319	6,134	9,637

* Provisional figures.

The leading customers in 1950-51 were Britain (22%), the U. S. (18%), Australia (5%), Pakistan (5%) and Burma (4%). Leading suppliers included Britain (20%), the U. S. (19%), Pakistan (7%) and Iran and Australia (each 6%). Leading exports

were cotton manufactures and yarns (23%), jute and jute manufactures (20%) and tea. Leading imports included raw cotton and waste, machinery, grain, pulse and flour.

MINERALS. The republic has rich mineral resources. The most valuable mineral is coal, deposited throughout most of the nation; production in 1951 was approximately 38,400,000 short tons. Manganese ore (747,000 tons in 1950) is mined in Madhya Pradesh, and gold in Orissa.

Assam and the Punjab produce oil. Other minerals include iron ore, monazite, diamonds, magnesite, uranium, zircon, silver, graphite, gypsum, tungsten ore and sapphires.

FINANCE. The interim 1952-53 budget on revenue account estimated revenue at Rs. 4,250,000,000, expenditure at Rs. 4,088,000,000. Expenditure on capital account was placed at Rs. 1,515,000,000, the estimated overall deficit being Rs. 560,000,000. The public debt on March 31, 1951, was about Rs. 20,886,100,000, most of which was held internally.

TOPOGRAPHY. Occupying the center of the Indian subcontinent, the main part of the republic is shaped somewhat like an arrowhead, with the tip located at the south. In the northern section are the Himalayas, south of which lie extensive plains drained by the Ganges and Brahmaputra river systems. The republic contains a large part of the great Indo-Gangetic plain which extends from the Bay of Bengal on the east to the Afghan frontier and the Arabian Sea on the west. This plain is the richest and most densely settled part of the subcontinent, containing more than half the population. Another distinct natural region is the Deccan, a plateau of 2,000 to 3,000 feet elevation, occupying the southern or peninsular portion of the subcontinent. In several regions, the Deccan is quite mountainous.

Forming a part of the republic are several groups of islands—the Laccadives (14 islands totaling about 80 sq. mi.) in the Arabian Sea; the Andamans (204 islands totaling 2,508 sq. mi.); and the Nicobars (19 islands totaling 635 sq. mi.) in the Bay of Bengal.

India's three great river systems, all rising in the Himalayas, have extensive deltas. The Ganges flows south and then east for 1,540 miles across the northern plain to the Bay of Bengal; part of its delta, which begins 220 miles from the sea, is within the republic. The Indus, starting in Tibet, flows northwest for several hundred miles in Kashmir before turning southwest toward the Arabian Sea; it is important for irrigation in Pakistan. The Brahmaputra, also rising in Tibet, flows eastward first through India and then south into Pakistan and the Bay of Bengal.

CLIMATE. India's climate varies from temperate in the north to tropical in the south, where temperatures are almost constant the year around. During the November-February cool season, northern India has a climate like that of the Riviera. From March to June steadily rising temperatures reach a peak sometimes as high as 115°, and then comes the southwest monsoon. Rainfall is heavy in most of the Union, averaging 50 to 60 inches in Assam and reaching 500 inches in the Assamese Garo hills.

Pakistan

(Member of British Commonwealth)

Area: 337,524 square miles.*

Population (census 1951)†: 75,687,000 (Moslem [about 80%], Hindu, Sikh).

Density per square mile: 224.2.

Governor General: Ghulam Mohammed.

Prime Minister: Khwaja Nazimuddin.

Principal cities (census 1951)†: Karachi, 1,005,000 (capital); Lahore, 849,000 (Punjab manufacturing center); Dacca, 401,000 (capital, East Pakistan); Chittagong, 269,000 (eastern seaport); Rawalpindi, 243,000 (military center).

Monetary unit: Pakistani rupee.

Principal languages: English, Bengali, Punjabi, Urdu, Hindi.

* Unofficial estimate. † Provisional.

HISTORY. Pakistan, a self-governing member of the Commonwealth of Nations and one of the two successor states to British India, is the world's largest and most important Moslem state.

The history of Pakistan prior to 1947 is principally that of India. (See India.) Its creation was to a large extent attributable to Mohammed Ali Jinnah, who envisaged and pressed for the idea of a predominantly Moslem state carved out of the Moslem areas of British India. Upon the transfer of power on Aug. 15, 1947, Jinnah became the first governor general; he died on Sept. 11, 1948, and was succeeded by Khwaja Nazimuddin, then Prime Minister of eastern Pakistan, who became Prime Minister of the new nation upon the assassination of Liaquat Ali Khan, Oct. 16, 1951.

GOVERNMENT. Pending the promulgation of a definitive constitution, Pakistan has a provisional government which is federal in nature. The governor general represents the Crown and is advised by the prime minister and his cabinet, who are responsible to the constituent assembly, which has both legislative and constitution-making powers. The provincial legislatures enjoy autonomy in certain fields; the provincial governors are appointed by the governor general on advice of the federal cabinet.

PROVINCES. Pakistan consists of two large sectors approximately 1,000 miles apart, separated by the Republic of India: in the

northwest, Sind, Baluchistan, the North-West Frontier Province, western Punjab, the princely state of Bahawalpur, and a few other small native states; in the northeast, eastern Bengal and the Sylhet district of Assam. It contains large communal minorities of Hindus and Sikhs. Over half of the nation's population is concentrated in east Bengal, which contains only 15 per cent of the total area.

DEFENSE. In the division of the British Indian Army, Pakistan received 20 regiments, which, with levies and contributions of native princes, made a total army strength of about 250,000 in 1949. The Royal Pakistan Navy has a force of 3 destroyers, 2 sloops, 2 frigates, 6 mine sweepers and several smaller vessels. The air force has 1 transport and 2 fighter squadrons.

SOCIAL AND ECONOMIC CONDITIONS. Literacy was barely 13.2 per cent, according to the 1951 census. In 1950, it was reported that there were 38,453 primary schools, 4,963 secondary schools, 1,649 high schools and 3 universities.

Pakistan, poor in industry and natural resources, is mainly an agricultural nation. Upwards of 45,000,000 acres are under cultivation, almost half of which are irrigated, largely in Sind and west Punjab in western Pakistan. The Punjab contains important wheat-growing areas, and eastern Pakistan is rich in jute, rice and tea. Production estimates for the crop year 1950-51 included wheat, 4,022,000 metric tons; rice, 12,490,000 tons (paddy); maize, 374,000 tons; barley, 157,000 tons; tea, 17,250 tons; jute, 4,356,000 bales of 400 lb. each; cotton (ginned), 253,000 tons; cottonseed, 459,000 tons. Wool production in 1950 was 11,000 tons (greasy). In 1947-48 there were 24,296,000 cattle, 6,145,000 sheep, 5,600,000 buffalo, 454,000 camels and 470,000 horses.

Pakistan is an exporter of agricultural products and an importer of manufactured commodities. Recent statistics are as follows (in millions of Pakistani rupees):

	1949-50	1950-51	1951-52
Exports	1,202	2,235	2,300
Imports	1,416	1,520	1,929

Chief exports in 1950-51 were raw cotton (52%) and raw jute (35%). Leading customers were India (14%), Japan (14%) and Britain (13%); leading suppliers, Britain (25%), India (18%) and Japan (12%). Important imports included cotton yarns and manufactures (35%), machinery and vehicles (14%) and metals and manufactures (6%).

Development of a unified nation is retarded by the fact that communication between east and west Pakistan is possible only through a thousand miles of Indian territory or by a long sea voyage. In the division of the British Indian railways,

Pakistan received 6,659 miles of track. Western Pakistan has an estimated road mileage of 46,000, about half of which is suitable for motor traffic. Eastern Pakistan has few roads for motor vehicles, but there are about 2,800 miles of waterways navigable by small steamers. On Dec. 31, 1948, the merchant marine had 19 vessels aggregating 87,703 gross tons. Karachi, the chief port, is the distribution center for north India and has the most important airport on the subcontinent. Chittagong is being developed as a port for eastern Pakistan.

Pakistan's industries supply only a small part of the national requirements. The most important manufacturing area is in the vicinity of Lahore in the Punjab. Industries include cotton ginning, spinning and weaving, sugar refining, cement making, flour milling, railway and engineering workshops and two petroleum refineries.

Mineral resources are limited. Production in 1951 included petroleum, 152,400 metric tons; coal and lignite, 516,000 tons; (1950) chromite, 18,700 tons; gypsum, 19,000 tons.

The preliminary budget for the fiscal year 1952-53 (which includes the railway budget) estimated revenue at Rs. 1,747,300,000 and expenditure at Rs. 1,668,900,000.

TOPOGRAPHY AND CLIMATE. Almost all of Sind and the west Punjab are a continuation of north-central plains leading up to rugged mountains in the north and west which traverse Baluchistan and the North-West Frontier Province. Eastern Pakistan is a low-lying, flat country with elevation averaging not more than 600 feet above sea level.

Numerous rivers flow southward into western Pakistan from the Himalayas; the greatest one, the Indus, enters the Arabian Sea near Karachi. Many barrages form the basis of artificial irrigation systems; land outside the reach of river water is either desert or semiarid. Several rivers with numerous branches cover eastern Pakistan and provide natural irrigation; the area includes part of the Ganges delta.

Western Pakistan has a brisk, cool season between November and March, with average mean temperature of about 60°, and an extremely warm period between April and November, with an average mean of 85°. Rainfall averages about 10 inches a year, of which Sind may receive as little as 6.3 in. Eastern Pakistan is within the range of the summer monsoon, with average annual rainfall of 85 in. The average maximum temperature varies between 75° and 100° during April to June; the minimum, between 45° and 60° during November to January.

OCEANIA

Australia, Commonwealth of (Member of British Commonwealth)

Area: 2,974,581 square miles.

Population (est. June 30, 1951): 8,431,391 (excluding full blooded aborigines, estimated at 50,000).

Density per square mile: 2.8.

Governor General: Field Marshal Sir William Slim.

Prime Minister: Robert Gordon Menzies.

Principal cities (est. 1950): Sydney, 1,549,590 (seaport, wool market); Melbourne, 1,326,400 (seaport; wool, wheat); Brisbane, 444,650 (seaport, industrial center); Adelaide, 422,000 (seaport); Perth, 309,000 (western seaport); Canberra, 19,000 (capital).

Monetary unit: Australian pound (£A).

Language: English.

Religions (census 1947): Anglican, 39.0%; Roman Catholic, 20.7%; Presbyterian, 9.8%; Methodist, 11.5%; other Christians, 7.1%; others, 11.9%.

HISTORY. Australia was the last continent to be discovered. The first Europeans to land were the Dutch, who sailed into the Gulf of Carpentaria in March, 1606. Later in the same year, Luis Vas de Torres, a Spaniard, sailed through the strait subsequently named for him, and may have touched at several points on the north coast. In 1642 Abel Tasman (for whom Tasmania was named) sailed from west to east along the southern shore and proved that Australia was not a part of the Antarctic continent. The continent was called New Holland until about 1850.

In 1770 Captain James Cook, after visiting New Zealand, sailed to the east coast of New Holland and landed south of the present city of Sydney. His account of the country led to its being claimed and settled by Great Britain.

The first settlement, made in 1788 at Botany Bay, was founded as a penal station for criminals from England. Transportation of criminals was virtually suspended in 1839, and Australia had comparatively few white settlers until gold was discovered in Victoria in 1851, after which immigrants poured in. By 1860 all the states (then separate colonies) except Western Australia had been granted responsible government.

On January 1, 1901, the six Australian states united to form the Commonwealth of Australia. The Commonwealth supported Great Britain wholeheartedly in World War I, sending 329,883 troops abroad, all volunteers, of whom 59,258 were killed, died or were missing. The financial drain on a nation of less than 6,000,000 population was extremely heavy.

The Commonwealth again declared war on Germany September 3, 1939; and in 1940-42, Australian troops distinguished themselves in the African, Balkan, Crete and Malayan campaigns. With the Japanese invasion of Southeast Asia and New Guinea in late 1941 and early 1942, Australia was threatened with invasion for the first time in 150 years. The Commonwealth

became a vast base for U. S. troops, and Gen. Douglas MacArthur set up his headquarters there on March 17, 1942.

In the general elections held August 21, 1943, Prime Minister John Curtin's Labour government was confirmed in office. Curtin died July 5, 1945, and was succeeded by Joseph B. Chifley, also of the Labour party. The Crown's appointment, on Commonwealth recommendation, of the Hon. William J. McKell, a local Labourite, to the office of Governor General, Jan. 31, 1947, to succeed the Duke of Gloucester, was bitterly criticized by the opposition. The Labour government was soundly defeated by the Liberal-Country-party coalition in general elections held Dec. 10, 1949, and Robert Gordon Menzies, the Liberal leader, became Prime Minister on Dec. 15. Elections held April 28, 1951, were again won by the coalition, although by a narrower margin.

GOVERNMENT. Australia, a self-governing member of the British Commonwealth of Nations, is a federal union of six states (New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania) and two territories (Northern Territory and Australian Capital Territory). The Constitution is modeled to some extent on that of the United States. Federal legislative power is vested in a Parliament of two houses—the Senate with 60 members (10 for each state) and the House of Representatives with 121 members (plus 2 members without vote who represent the territories) elected on a population basis.

Executive power nominally is exercised by the Queen, through a Governor General, who is appointed by her. Actually, however, the Commonwealth is administered by the Prime Minister and the Cabinet members, who are responsible to the House of Representatives and must enjoy its confidence. The House of Representatives continues its sessions for three years from the date of its first meeting, unless sooner dissolved. Senators are chosen for six years, but the Senate may be dissolved in the event of prolonged disagreement with the House. The party alignment in the House after the elections of April 28, 1951, was as follows: Liberal 52, Country 17 and Labour 52 (and 2 non-voting members).

Each of the states is headed by a governor appointed by the British Crown and advised by the Prime Minister and his Cabinet; the latter actually administer the government. As in the U. S., the state governments retain the powers not specifically delegated to the federal government. The Northern Territory is administered by the federal government.

Federal judicial power is vested in a Federal Supreme Court of 7 justices, ap-

pointed by the Governor General in Council. Each state has its own judicial system.

Compulsory military service was reintroduced in 1951. The army then had upwards of 20,000 men, and the navy had over 10,000 men, with 1 aircraft carrier, 3 cruisers, 10 destroyers, 3 submarines (on loan from Britain), 14 frigates and many smaller craft. The air force had about 10,000 men. Army, navy and air units were sent to Korea. During World War II, 350,000 men served overseas.

SOCIAL AND ECONOMIC CONDITIONS. Normal primary education is provided free by the states. In 1950 there were 7,969 state schools, with average attendance of 869,906, and 1,835 private schools, with average attendance of 281,056. The 8 universities had a total enrollment of 33,000.

Australia is the world's chief producer of wool, and sheep farming is the Commonwealth's most important single industry. About 55 per cent of Australia's total area is suitable (mining excepted) only for pastoral pursuits. On March 31, 1951, there were 115,596,136 sheep, 15,223,829 cattle, 1,133,588 hogs and 998,954 horses. The production of wool in 1950-51 was 487,865 long tons (greasy); butter, 164,971 tons; cheese, 44,578 tons. Production of meat averages 1,000,000 long tons annually; it was 1,013,841 tons in 1950-51.

The most important crop is wheat; the areas of heaviest production are in South Australia and New South Wales, but production in Western Australia is rapidly increasing. Production of wheat in 1950-51 was 4,935,117 long tons. Production of oats was 448,711 tons; barley, 509,839 tons; maize, 118,221 tons.

Sugar and cotton are grown in Queensland and New South Wales, tobacco in northeast Victoria, and vines chiefly in South Australia and Victoria.

Australian industry has made rapid progress, with the value of industrial output tripling between 1915 and 1940. Manufacturing is concentrated in or near the capital cities and is mainly concerned with primary production such as the processing of pastoral products, although heavy industrial goods are being manufactured in increasing volume. New South Wales is the leading industrial state. Power for industry is derived almost entirely from coal. In 1950-51 there were 43,129 factories, employing 968,232 workers and producing net output valued at £A845,865,000 and gross output valued at £A2,151,056,000. Steel production was 1,434,000 long tons in 1951.

Trade statistics for three years (in millions of Australian pounds) are as follows:

	1948-49	1949-50	1950-51
Exports	542.7	613.7	983.9
Imports	414.1	536.1	741.9

In 1950-51 the leading customers were Britain (33%), the U. S. (15%), France (9%), Japan (6%) and Italy (5%). Leading suppliers were Britain (48%), the U. S. (8%) and India (5%). Chief exports were wool (65%), wheat (8%), flour (4%), meat (3%) and hides and skins (3%).

The principal ports are Sydney, Melbourne and Adelaide. Railway mileage in 1949 totaled 27,716; roads, over 500,000. Civil aviation is under Commonwealth control. The merchant marine had 349 ships (100 tons and over), aggregating 553,748 gross tons, on June 30, 1951. In March 1951, there were 1,182,135 telephones, 2,074,775 radios and, in Dec. 1950, 876,902 automobiles and 475,926 commercial vehicles.

Revenue on consolidated account (actual for 1950-51) was £A841,791,688 (estimated 1951-52: £A1,056,104,000); expenditure (actual 1950-51), £A841,791,688 (estimated 1951-52: £A1,056,104,000). Loan fund expenditure (actual 1950-51) was £A54,427,041 (estimated 1951-52: £A55,672,000). The public debt (federal and state) on Dec. 31, 1951, was £A3,183,148,000 (federal only: £A1,901,605,000).

NATURAL FEATURES AND RESOURCES.

Australia is approximately equal in area to the United States and is more than three-fourths the size of Europe. Much of the continent is an arid plain with neither high mountains nor large forests. The coast line is unusually regular, but two great peninsulas jut out toward New Guinea in the north—Cape York Peninsula and Arnhem Land. Between them lies the Gulf of Carpentaria. A wide bay, the Great Australian Bight, cuts into the south coast. Along the east coast, ranges of mountains run from north to south, reaching their highest point in Mt. Kosciuszko (7,352 ft.). West of the mountains are three plains, one drained by the Murray and Darling Rivers which flow into the sea southeast of Adelaide, the second draining into Lake Eyre, a salt lake, and the third—a tropical plain—bordering the Gulf of Carpentaria. The western half of the continent is occupied by a desert plateau which rises into barren, rolling hills near the west coast. It includes the Great Victoria Desert, to the south, and the Great Sandy Desert to the north. The island of Tasmania (26,215 sq. mi.), lying off the southeastern coast, is largely a plateau.

Australia possesses considerable mineral resources. The value of mineral output in 1950 was £A89,543,729. Most important is gold (1950 output: 869,537 ounces). Second in importance is coal, mined near Sydney, Brisbane and in eastern Tasmania (1951 output: 17,621,486 long tons, plus 7,836,056 tons of brown coal). The Broken Hill mines in New South Wales are one of the most valuable silver-lead-zinc areas in

the world. Silver production in 1950 was 11,134,640 ounces; lead, 224,849 long tons; and zinc, 193,258 tons. Other important minerals include tin (1,854 tons), copper (16,660 tons), iron ore (1,464,617 tons) and uranium.

Forest products include timber (rough sawn), eucalyptus oil, sandalwood oil, tan bark and yacca gum. Sea products include bêche-de-mer, oysters, pearls, pearl shell, tortoise shell and agar-agar.

CLIMATE. The northern third of the country lies within the torrid zone and the remainder within the south temperate zone. The coolest portion of the mainland (Victoria) is not unlike Spain and south Italy. The average temperature for Australia as a whole is 70°, and the northern coastal areas average 82°. Only in the center of the continent does the annual range of temperature exceed 30°. Large areas of the continent receive less than 10 inches of rain. The eastern highlands and Victoria are the best-watered regions.

Norfolk Island, under Commonwealth administration since 1914, lies about 800 miles east of New South Wales. It enjoys a delightful subtropical climate. Citrus fruits, bananas and coffee are grown.

PAPUA AND NEW GUINEA, TERRITORY OF—Status: Australian territory and U. N. trust territory.

Administrator: J. K. Murray.

Capital: Port Moresby (population 3,000).

Chief exports: rubber, gold.

Agricultural products: coconuts, rubber, copra, cacao.

Minerals: gold, silver, platinum.

Effective July 1, 1949, the Australian territory of Papua and the U. N. trust territory of New Guinea were joined in an administrative union by act of the Australian parliament. Provision is made for an executive and a legislative council.

Papua, comprising the southeastern part of the island of New Guinea, and the islands of the D'Entrecasteaux, Louisiade and nearby groups, was annexed by Queensland in 1883 and by the British Crown in 1888. It came under the control of the Australian Commonwealth in 1901 and became the Territory of Papua in 1906. Japan invaded Papua in early 1942, but with the capture of Buna in December, 1942, Australian control was restored.

In 1947, there were 3,200 nonnatives in the territory. About 280,000 acres of land have been leased, chiefly by planters, and more than 62,000 acres are cultivated.

The U. N. trust territory of New Guinea, comprising the northern section of eastern New Guinea (93,000 sq. mi.) was mandated in 1920 by the League of Nations to the government of the Commonwealth of Australia, together with the Bismarck Archipelago (New Britain, New Ireland and

adjacent islands), the Admiralty Islands with several outlying groups, and the northern Solomon Islands (Bougainville and Buka). It was placed under United Nations trusteeship Dec. 13, 1946, with Australia as the administering power. Japanese troops occupied much of the territory in 1942-45. In 1947, there were 6,200 nonnatives in the territory.

Fiji—Status: Colony.

Governor: Sir Ronald H. Garvey.

Capital: Suva (population 25,395).

Foreign trade (1951): exports, £7,312,990; imports, £9,368,137. Chief exports: sugar (36%), gold, coconut oil.

Agricultural products: sugar (exports 1951: 72,995 long tons), coconut oil (10,470 tons), copra, bananas, molasses.

Mineral: gold (1951: 93,700 oz.).

Fiji colony consists of an archipelago of from 200 to 250 islands in the South Pacific Ocean about 1,740 miles northeast of Sydney, Australia. The larger islands, including Viti Levu (4,053 sq. mi.) and Vanua Levu (2,130 sq. mi.) are mountainous and of volcanic origin. The archipelago was ceded to Great Britain by the native ruler in 1874.

The population in 1951 included 132,889 Fijians and 143,332 Indians. Importation of the latter to work the sugar plantations has led to important social and economic changes. There has been almost no intermarriage between Fijians and Indians, and considerable ill feeling has developed between them.

During World War II, the archipelago was an important air and naval station on the route from the U. S. west coast and Hawaii to Australia and New Zealand.

Fiji has a pleasant climate, with the temperature seldom leaving the 60°-90° range; rainfall is heavy in the southeastern three quarters of the archipelago, averaging 10-12 ft. annually, but is almost nil in the northwestern quarter.

NAURU—Status: U. N. trust territory.

This small island (8 sq. mi.), an important source of phosphate (exports 1948-49: 659,800 tons) was annexed by Germany in 1888 and was placed under joint Australian, New Zealand and British mandate after World War I. In 1947 it was placed under U. N. trusteeship, with the same three administering powers. It lies about 2,215 miles northeast of Sydney and to the northeast of the Solomon Islands.

New Zealand

(Member of British Commonwealth)

Area: 103,416 square miles (104,242 including outlying and annexed islands).

Population (census 1951): 1,939,703 (1945: Europeans, 93.5%; Maori, 5.8%; others, .7%).

Density per square mile: 18.6.

Governor General: Lt. Gen. Sir Wilioughby Norrie.

Prime Minister: Sidney G. Holland.

Principal cities (census 1951): Auckland (greater), 329,123 (seaport and naval base); Wellington (greater), 208,292 (capital); Christchurch, 174,221 (cereals, stock raising); Dunedin City, 95,457 (textiles).

Monetary unit: New Zealand pound (£NZ).

Language: English.

Religions (census 1945): Church of England, 37.5%; Presbyterian, 23.4%; Roman Catholic, 13.4%; Methodist, 8.2%; Baptist, 1.7%; others, 15.8%.

HISTORY. New Zealand, about 1,250 miles east of Australia, consists of two main islands and a number of smaller outlying islands so scattered that they range from the tropical to the antarctic. The islands, which have approximately the area of Italy, were discovered and named New Zealand in 1642 by Abel Tasman, a Dutch navigator. Captain James Cook explored them in 1769 and after him came many other sailors, sealers, whalers and traders. English missionaries landed in 1814 but made slow progress. On Jan. 22, 1840, to head off a possible French move to claim New Zealand, Britain formally annexed it. The New Zealand Company was formed the same year.

New Zealand was granted self-government in 1852, a full parliamentary system and ministries in 1856 and dominion status on Sept. 26, 1907. Meanwhile from 1861 to 1871 there was fierce intermittent fighting with the native Maoris. Gold was first discovered in 1853.

New Zealand's Labour party came to power in 1935 for the first time, with Michael J. Savage as Prime Minister. The party began a program of liberal economic and social measures and it was again successful in the 1938 elections.

When Savage died in 1940, he was succeeded by Peter Fraser, who formed a special war cabinet (New Zealand had joined Britain in the war against the Axis in September, 1939). In World War II, New Zealand troops fought in Egypt, Greece, Crete, North Africa, Sicily and Italy, and the islands served as a major base for U. S. troops in the Pacific war.

After 14 years in power, the Labour party was defeated at the general election of Nov. 30, 1949, and the National party took office with Sidney G. Holland as Prime Minister.

GOVERNMENT. New Zealand is a self-governing member of the British Commonwealth of Nations. The British Crown is represented by a Governor General named by the Queen after consulting with the New Zealand government. Legislative power is vested in the eighty-member House of Representatives. The former upper house (Legislative Council) was abolished effective Jan. 1, 1951. The House

elected on Sept. 1, 1951, had 50 National-party members and 30 Labour-party members. Executive power is vested in the Cabinet chosen from the members of the majority party in the House and headed by the Prime Minister.

Military service was voluntary until July 22, 1940, when compulsory service was instituted. Service outside New Zealand, hitherto voluntary, also became obligatory during World War II. At full mobilization, New Zealand had 157,000 men in the armed forces and 124,000 in the Home Guard. Almost one-third of the whole male population of military age served overseas. The peacetime force is stabilized at 11,000 men. Naval forces include 2 cruisers, 6 escort destroyers and a number of mine sweepers.

Navy and volunteer army forces were dispatched to Korea in 1950. Compulsory service was adopted. A mutual defense pact with the U. S. was signed Sept. 1, 1951.

SOCIAL AND ECONOMIC CONDITIONS. State education is free and compulsory between the ages of 7 and 15. More than half the Maoris attend the regular public schools; the remainder attend missionary and native village schools. In Dec. 1949, there were 2,211 primary schools, with 276,659 students and 234 secondary schools with 38,374 students. University students numbered 11,000. About 8 per cent of the national budget is expended on education.

New Zealand's advanced social security system, financed principally by a 5 per cent tax on wages, salaries and firm incomes, gives benefits for old age, sickness, unemployment, maternity and hospitalization, widows, orphans, poor families and chronic invalids. The death rate is among the world's lowest.

Primarily a grazing country, New Zealand is one of the world's largest exporters of mutton, lamb, wool, butter and cheese. In 1951, livestock included 34,786,386 sheep, 5,060,024 cattle and 564,335 hogs. Wool production for 1950-51 was 174,000 long tons (greasy basis). Outside of grass, the chief crop is wheat (6,271,928 bushels in 1950-51). Other crops are oats, barley, potatoes, onions, tobacco, fruits and vegetables. Butter production in 1950-51 was 181,861 long tons; cheese, 118,525 tons; meat, 529,980 tons. Gross agricultural income in 1950-51 was £NZ290,400,000.

The chief industries of New Zealand are freezing of meat and making of butter, cheese and condensed milk. Others of major importance are electricity generation, saw milling and clothing manufacture.

In 1949-50 there were 8,027 factories with 144,309 workers. Gross output was valued at £NZ332,204,000.

Trade statistics for three years (in millions of New Zealand pounds) are as follows:

	1949	1950	1951
Exports	147.3	183.0	247.6
Imports	120.8	158.1	206.5

In 1951, New Zealand's leading customers, by value, were Britain (57%), the U. S. (12%) and France (7%). Leading exports were wool (51%), dairy products (25%) and meat (13%). Leading suppliers were Britain (54%), Australia (10%) and the U. S. (10%).

The merchant marine had 164 ships (100 tons and over), aggregating 232,427 gross tons, on June 30, 1951. Government-owned railway mileage in 1948-49 was 3,526, and the mileage of roads was 12,708.

Recent government financial data are as follows (in millions of New Zealand pounds):

	1949-50	1950-51	1951-52
Revenue	125.0	143.8	180.8
Expenditure	120.7	135.5	168.2

The public debt on March 31, 1951, was £NZ693,424,678, including £26,191,109, on which interest payments had been suspended since 1931 by agreement with the British government.

TOPOGRAPHY, NATURAL RESOURCES AND CLIMATE. New Zealand's two main components are North Island and South Island, separated by Cook Strait, which varies from sixteen to 190 miles in width. North Island (44,281 sq. mi.) is 515 miles long and volcanic in its south central part. It contains many hot springs and beautiful geysers. In the southern part of North Island is Lake Taupo (238 sq. mi.), in the center of a pumice-covered plateau.

South Island (58,093 sq. mi.) has the Southern Alps along its west coast, with Mt. Cook (12,349 feet) the highest point in New Zealand.

Principal minerals are coal (1951: 2,435,-505 long tons), gold (1950: 76,527 ounces) and silver (1950: 199,701 ounces). Other minerals of importance include tungsten, pumice, silica sand, asbestos, scheelite, iron ore and phosphate. About 20 per cent of the total area is forested; 575,290,000 board feet of lumber were cut in 1951-52.

Flounder, snapper and tarakihi account for 75 per cent of New Zealand's fishery industry. There also are extensive oyster beds. The once important whaling industry declined sharply with development of pelagic whaling.

Numerous rushing streams give New Zealand a great volume of hydroelectric power. South Island has available about 4,000,000 horsepower, and North Island 800,000. About 95 per cent of the population has access to power.

The ocean tempers New Zealand's climate, which otherwise might have great variation. The range of mean temperatures is small (at Auckland, 66.3° in January,

51.2° in July; at Wellington, 60.9° in January, 47.2° in July). Rainfall is moderate except on the western slope of the Southern Alps; it averages 45.3 inches annually at Auckland and 47.5 inches at Wellington and is heaviest in winter.

DEPENDENCIES. The Auckland Islands (234 sq. mi.) and Campbell Island (44 sq. mi.) are the principal outlying islands, which have a total area of 307 square miles. They are included within the geographical boundaries of New Zealand as proclaimed in 1847. The Aucklands and Campbell are uninhabited. Six hundred miles north of the Aucklands are the volcanic Kermadec Islands (13 sq. mi.), annexed in 1887.

In Polynesia a number of uninhabited islands were brought under New Zealand's control in 1901. Rarotonga and Mangala in the Cook group total 84 square miles. Niue (or Savage Island) (115 sq. mi.) is the largest island outside the Cook group. New Zealand also administers the Ross Dependency, an antarctic region claimed by Great Britain in 1923, and the Union (or Tokelau) Islands, transferred in 1925 from the Gilbert and Ellice Islands colony.

WESTERN SAMOA—Status: U. N. trust territory.

Administrator: F. W. Voelcker.

Capital: Apia (population 10,000).

Foreign trade (1951): exports, £1,721,942; imports, £1,194,698. Chief export: cacao.

Principal products: copra, cacao, bananas, tropical fruits, rubber.

The former German Samoan Islands were occupied by New Zealand troops in the opening weeks of World War I and were mandated to New Zealand by the League of Nations in 1920 as the Territory of Western Samoa. They came under U. N. trusteeship in 1947, with New Zealand continuing as the administering authority. The administrator is assisted by a legislature with a Samoan majority and a consultative Native Council. There are 9 islands, of which the largest and most populous are Savaii (703 sq. mi.) and Upolu (430 sq. mi.). They are largely mountainous but fertile. The inhabitants are Polynesian Christians.

Pacific Islands

High Commissioner in Western Pacific: R. C. Stafford Stanley.

Island groups in the Pacific administered by the British High Commissioner in the Western Pacific include (1) Gilbert and Ellice Islands, (2) British Solomon Islands, (3) Tonga, (4) Pitcairn Island, and (5) New Hebrides Condominium (see French Overseas Territories). The High Commissioner has headquarters at Suva, Fiji.

GILBERT AND ELLICE ISLANDS—Status: Colony.

The islands in these groups (including the Gilbert group; the Ellice group; Ocean

Island [the seat of administration], Fanning, Washington and Christmas Islands; and the Phoenix group) were proclaimed a British protectorate in 1892 and annexed as a colony in 1915. The most important product is high-grade phosphate.

Ownership of Canton and Enderbury Islands in the Phoenix group was long in dispute between Great Britain and the United States until 1939, when an agreement for "use in common" was reached by the two governments. Several of the Gilbert Islands were occupied by Japanese forces in World War II, and Tarawa was the scene of one of the fiercest battles in U. S. Marine Corps history in Nov., 1943, when it was retaken from the Japanese.

SOLOMON ISLANDS—Status: Protectorate.

This British protectorate, lying east of New Guinea, includes the islands of Guadalcanal, Malaita, San Cristobal, New Georgia, Santa Isabel, Choiseul and numerous smaller islands. Bougainville, one of the group, is under Australian mandate. The islands, which came under British protection late in the 19th century, were the scene of several important U. S. naval and military victories during World War II. There are no native states, and administration is carried on by a Resident Commissioner assisted by a nominated Advisory Council. The most important products are copra, coconuts and rubber.

TONGA (FRIENDLY ISLANDS)—Status: Protected state.

Foreign trade (1949): exports, \$810,927; imports, \$583,523. Chief export: copra.

This native Polynesian kingdom in the Pacific came under British protection through the Anglo-German agreement of November 14, 1899. The native queen is advised by a British Agent; the 21-member native Legislative Council is partly elected and partly nominated. The only important products are copra and bananas.

PITCAIRN ISLAND—Status: Colony.

Located in the South Pacific, about midway between Australia and South America, Pitcairn has an area of 2 square miles. It was settled in 1790 by British mutineers from the ship "Bounty," commanded by Capt. Bligh. Overpopulation forced removal of the settlement to Norfolk Island in 1856, but about 40 soon returned. The island is governed by an elected council headed by a chief magistrate. The population in Sept. 1950 was 127.

Bulgaria (People's Republic)

(Blgariya)

Area: 42,741 square miles (including Southern Dobruja).

Population (est. 1950): 7,235,000 (1934: Bulgarian, 86.7%; Turkish, 10.1%; Gypsy, 1.3%; others, 1.9%).

Density per square mile: 169.3.

Chairman of Presidium: Georgi Damjanov.

Premier: Vulko Chervenkov.

Principal cities (census 1946): Sofia, 434,888 (capital, railroad center); Philippopolis (Plovdiv), 125,440 (commercial center); Varna, 77,792 (Black Sea port); Ruschuk, 53,420 (chief Danube port); Burgas, 43,684 (Black Sea port).

Monetary unit: Lev.

Languages: Bulgarian, Turkish.

Religions: Greek Orthodox, 84.4%; Mohammedan, 13.5%; Jewish, .8%; Roman Catholic, .8%; others, .5%.

HISTORY. Bulgaria, with a strife-ridden political past, is an agrarian country about the size of Virginia. It sided timidly with Germany in World Wars I and II, hoping to win territory. It lost in both wars.

The first Bulgarians, a tribe of wild horsemen akin to the Huns, crossed the Danube from the north in A.D. 679, and took the province of Moesia from the Roman Empire. They adopted a Slav dialect and Slavic customs and twice conquered most of the Balkan peninsula between 893 and 1280. After the Serbs subjected their kingdom in 1330, the Bulgars gradually fell prey to the Turks, and from 1396 to 1878, Bulgaria was a Turkish province. In 1878, after the Turks had ruthlessly suppressed a Bulgar revolt, Russia forced Turkey to give the country its independence; but the European powers, fearing that Bulgaria might become a Russian dependency, intervened. By the Treaty of Berlin (July, 1878), Bulgaria became autonomous under Turkish sovereignty, with the province of Eastern Rumelia under a Christian governor.

In 1887, Prince Ferdinand of Saxe-Coburg-Gotha was elected ruler; on Oct. 5, 1908, he declared Bulgaria (and Rumelia) an independent kingdom and was proclaimed Tsar.

In the First Balkan War (1912-13), Bulgaria joined its neighbor states and defeated Turkey; then it bickered with Serbia and Greece over division of Macedonia and was defeated by them in the Second Balkan War, which lasted one month—June-July, 1913.

Still coveting Macedonia, Bulgaria joined Germany in World War I and lost. On Oct. 3, 1918, Tsar Ferdinand abdicated in favor of his son, who became Tsar Boris III. The Treaty of Neuilly the next year disarmed Bulgaria, reduced it to its 1878 size, and levied a heavy indemnity. Internal disorder, underground intrigue and Agrarian-Communist agitation marked the next fifteen years.

Boris assumed dictatorial powers in 1934-35. When Hitler awarded his nation Southern Dobruja, taken from Rumania in 1940, the weak but land-hungry Boris joined the Nazis in war the next year and occupied

parts of Yugoslavia and Greece. Later, with the fortunes of war swinging inexorably against them, the Germans tried to force Boris to send his troops against the Russians. Boris resisted and died under mysterious circumstances on Aug. 28, 1943.

Simeon II, infant son of Boris, became nominal ruler under a regency. Three days after Russia declared war on Bulgaria on Sept. 5, 1944, Bulgaria declared war on Germany. Russian troops streamed in the next day, and under an informal armistice a coalition "Fatherland Front" cabinet was set up under Kimon Georgiev.

The Fatherland Front regime represented the Communist, Zveno, Agrarian and Social Democratic parties, but real power was in the hands of the Communists, who had active Soviet support and were ably led by Georgi Dimitrov, veteran party leader and former secretary-general of the Comintern.

This Government initiated extensive social and economic reforms, instituted a ruthless purge of war criminals and suppressed all political groups which failed to subscribe to its policies. The elections of Nov. 18, 1945, and Oct. 27, 1946, were conducted in typical Communist manner, with the Fatherland Front securing overwhelming majorities, according to official figures.

After the plebiscite of Sept. 8, 1946, which resulted in overthrow of the monarchy, and the Oct. 27 elections, the Communists quickly moved to take over the Government officially and to reduce the political opposition to complete impotence. Dimitrov replaced Georgiev as Premier on Nov. 22, 1946.

During the next years, Bulgaria continued to strengthen its ties with its Balkan neighbors back of the "iron curtain." Dimitrov died July 2, 1949, while on a leave of absence in the U.S.S.R. Vassil Kolarov was elected Premier on July 20. He died on Jan. 23, 1950, and was succeeded by Vulko Chervenkov, Dimitrov's son-in-law.

The United States broke diplomatic relations with Bulgaria on Feb. 21, 1950.

GOVERNMENT. The constitution of Dec. 4, 1947, modeled after that of the Soviet Union, provides that the unicameral National Assembly is "the supreme organ of the State." The Assembly elects a 15-member presidium, the president of which is the nominal chief of state. Governmental administration is carried on by the Premier and his Cabinet, who are responsible to the Assembly. On Feb. 4, 1948, the Communist-dominated Fatherland Front was declared the only official party.

PEACE TREATY OF 1947. Under the treaty which took effect Sept. 15, 1947, Bulgaria's boundaries are those which existed Jan. 1, 1941, thus including Southern Dobruja. Bulgaria was to pay reparations in the

amount of \$45,000,000 to Greece and \$25,000,000 to Yugoslavia and was to make compensation for damage to Allied property in Bulgaria at the rate of 75 per cent of the cost of replacement.

DEFENSE. The 1947 treaty fixed the strength of the armed forces as follows: army 55,000; anti-aircraft artillery 1,800; navy 3,500; and air force 5,200 men and 90 aircraft, none of them bombers. The army was purged of all anti-Communist officers late in 1946 and has been reorganized along Soviet lines.

SOCIAL AND ECONOMIC CONDITIONS. Though elementary education is compulsory and free between 7 and 14, the rate of illiteracy is relatively high. Schools in 1950 included 9,072 primary schools and 319 secondary and technical schools. The University of Sofia and 8 other universities and colleges had an estimated enrollment of 50,000.

Most of the population is Greek Orthodox. Clergy of all faiths are paid by the state. The national language, Bulgarian, is closely related to Russian; both employ the Cyrillic alphabet.

Bulgaria is predominantly agrarian, with 80 per cent of the population engaged in agriculture. Because of the mountainous character of the country, however, only about 43 per cent of the land is tilled or used for pasture. Most landholdings are small, and primitive methods of cultivation predominate. More than half the cultivated area is devoted to cereals, including wheat (production in 1948: 1,470,000 metric tons), corn, barley, oats and rye. Other crops are tobacco (1949: 49,799 metric tons), alfalfa, cotton, flax, potatoes and sugar. There are extensive vineyards in the southern valleys. In 1950 Bulgaria had 2,140,000 cattle and 1,500,000 hogs; in 1948 there were 449,000 horses and mules and 8,995,000 sheep and goats.

Industries of Bulgaria are of minor importance and with few exceptions—preparation of tobacco leaf, wines and liquors, distillation of attar of roses, and flour milling—are confined to domestic markets. All industries of any importance have been nationalized.

Foreign trade necessarily consists of the exchange of agricultural products for cheap manufactures. Statistics, in billions of leva, are as follows:

	1946	1947	1948
Exports	14.94	24.53	34.10
Imports	17.51	21.42	35.20

Leading customers in 1948 were U.S.S.R. (52%) and Czechoslovakia (11%). Leading suppliers were U.S.S.R. (58%) and Czechoslovakia (12%). Tobacco was the principal export.

Although the Danube is navigable along the northern border, only a comparatively

small percentage of prewar Danube ship tonnage was Bulgarian. Railroad mileage, all nationalized, totaled 1,966 in 1949; highway mileage was 13,870 in 1945.

Government revenues and expenditures for 1951 were estimated at 271,794,000,000 leva and 267,922,000,000 leva, respectively.

TOPOGRAPHY, NATURAL RESOURCES AND CLIMATE. Two mountain ranges and two great valleys mark Bulgaria's topography. The Balkan belt crosses the center of the country, almost due east-west, rising to a height of 7,800 feet. The Rhodope range breaks off from the Balkans in the west, curves and then straightens out to run nearly parallel along the southern border. Between the two ranges is the valley of the Maritsa, Bulgaria's principal river. Between the Balkan range and the Danube, which forms most of the northern boundary with Rumania, is the Danubian tableland, traversed by several short rivers. Southern Dobruja, a fertile region of 2,900 square miles below the Danube delta, is an area of low hills, fens and sandy steppes.

Soft coal is Bulgaria's principal mineral; production in 1949 was estimated at 4,722,329 metric tons. Other mineral products include aluminum and rock salt; uranium deposits have been reported.

About 30 per cent of the country is forested, but a large part is unproductive scrub, and most of the valuable woods are virtually inaccessible. Wood imports usually exceed exports.

Bulgaria's climate is characterized by cold winters and warm summers approaching the subtropical in the south. Rain and snowfall average twenty to forty inches a year. Temperatures at Sofia average 28° in January and 69° in July.

Burma (Republic)

Area: 261,749 square miles.

Population (est. 1951): 18,674,000 (1941: Burmans, 60%; Shans, 7%; Chins, 2%; Kachins, 1%; Indians, 6%; Chinese, 1%; Indo-Burmans, 1%; others, 22%).

Density per square mile: 71.3.

President: Dr. Ba U.

Premier: U Nu.

Principal cities (est. 1942): Rangoon, 501,219 (capital, chief port), Mandalay, 150,000 (river port, upper Burma), Moulmein, 70,000 (seaport); (est. 1941) Bassein, 50,000 (river port).

Languages: Burmese (70%), English.

Religions: Buddhist, 90%; Mohammedan, 3%; Hindu, 3%; Christian, 2%; others, 2%.

HISTORY. Lying on the eastern side of the Bay of Bengal between India, China and Siam, the Union of Burma came into existence as an independent state on Jan. 4, 1948. Since that time the new republic has held its own with difficulty against

attacks on the one hand by Communist rebels seeking its overthrow and on the other by Karen insurgents seeking wider territorial autonomy.

In 1612 the British East India Company sent agents to Burma, and in the 17th and 18th centuries the Burmese stoutly resisted the efforts of British, Dutch and Portuguese traders to establish posts on the Bay of Bengal. Actual British rule dated from 1826, and in 1886 British troops forced the annexation of all Burma to India. On April 1, 1937, the British separated Burma from India and set it up as a Crown colony with its own legislature and a British governor.

For hundreds of years a battlefield of petty princes, Burma became a key battleground in World War II largely because the 800-mile Burma Road was the Allies' vital supply line to China. The Japanese invaded the country in Dec., 1941, and by May, 1942, had occupied most of it, cutting the road. In Aug., 1942, the Japanese set up a puppet government under Dr. Ba Maw.

After one of the most difficult campaigns of the war, Allied forces liberated most of Burma prior to the Japanese surrender on Aug. 14, 1945. Civil government was resumed in Oct., 1945, but the native nationalist feeling continued strong.

An agreement with Britain signed on Jan. 27, 1947, gave the Burmese an opportunity to determine their future form of government. The leftist Anti-Fascist People's Freedom League secured a majority in the Constituent Assembly elections held April 9, 1947, and the Assembly voted on June 17, 1947, to declare Burma a republic. Thakin Nu (now known as U Nu) became premier July 19, 1947, upon the assassination of U Aung San. Sovereignty was formally transferred on Jan. 4, 1948.

GOVERNMENT. The constitution adopted by the Constituent Assembly Sept. 24, 1947, provides for a government headed by the president, who is elected by the two houses of parliament—the Chamber of Deputies and the Chamber of Nationalities—meeting in joint session. The president appoints the premier on nomination of the Chamber of Deputies; the cabinet must enjoy the confidence of the Chamber of Deputies. Four frontier areas—the Shan, Kachin and Karenni states, and the Chin special division—are constituent parts of the Union but enjoy some autonomy.

The Anti-Fascist People's Freedom League won about two-thirds of the 250 seats in the Chamber of Deputies in the first elections held under the new constitution in 1951-52.

The constitution contemplates a form of state socialism, with the operation of all public utilities and the exploitation of

all natural resources to come eventually under state control.

SOCIAL AND ECONOMIC CONDITIONS. Burma had 4,937 state and recognized schools in 1947-48, with enrollment of 443,332. In addition, almost every hamlet has a Buddhist school where tuition is free. Because of the many monastic schools, the percentage of wholly illiterate men is small. There are universities at Rangoon and Mandalay, with a total of 3,350 students in 1950.

The natives in general are Mongolian; the Burmese are the most advanced.

Indians, settled in the delta region, supply most of the coolie labor, while the Chinese constitute the artisan and merchant class. Buddhism, the national religion, profoundly affects the national character; every village has its temple.

Burma is essentially agricultural, with crop growing concentrated in the delta and river valleys. It is a leading producer of rice, the staple food, which occupies two-thirds of the cultivated area. Output in 1951-52: 5,300,000 metric tons. Crops grown in the dry zone in upper Burma include millet, cotton, peanuts and sesame. Other crops include tobacco, fruit, vegetables and cereals. About 1½ million acres are under irrigation. The number of rubber plantations has increased. The principal domestic animals are water buffalo (721,000 in 1950), used as a beast of burden in the delta, and small humped oxen, which predominate in other areas. Cattle, including oxen, totaled 4,488,000 in 1950.

Leading industries include silk weaving and dyeing, rice husking, oil refining and wood carving.

The whole Burmese economy was disrupted during the Japanese occupation, and rehabilitation has made slow progress, hampered by lack of heavy material, consumer's goods and transport, and in some areas by extreme lawlessness and rebellion.

Recent trade statistics are as follows (in millions of Burmese rupees):

	1948-49	1949-50	1950-51
Exports	783.3	660.7	980.8
Imports	373.3	432.3	681.2

Chief exports in 1950-51 were rice (77%), teakwood (5%) and cotton (3%). Leading customers were Ceylon (24%), India (23%), Japan (13%) and Indonesia (13%); leading suppliers, India (37%), Japan (18%) and Britain (16%).

The 1951-52 budget, ordinary and capital, estimated revenue at Rs. 745,500,000 and expenditure at Rs. 919,300,000.

The principal commercial arteries are the Irrawaddy, navigable for 900 miles to Bhamo, and its tributaries. Regular steamer service is maintained to Bhamo.

Railways designed to supplement river transport totaled 1,777 miles in 1950, all state-owned. There are no rail connections with India or any other country. The length of roads was 12,472 miles in 1949. The Burma Road connects Lashio, a rail terminus in northern Burma, with Kunming, China.

TOPOGRAPHY, NATURAL RESOURCES AND CLIMATE. Slightly smaller than Texas, Burma is divided into three natural regions: the Arakan Yoma, a long, narrow mountain range forming the barrier between Burma and India; the Shan Plateau in the east, extending southward into Tenasserim; and the Central Basin running down to the flat, fertile delta of the Irrawaddy in the south. This delta contains a network of inter-communicating canals and nine principal mouths.

Mineral resources are considerable but, in many cases, undeveloped. Production by the Burmah Oil Company, Ltd., in 1939, was 7,396,000 barrels, but in 1950 it was only about 450,000 barrels.

Other minerals include lead, silver, tin, zinc, nickel, cobalt, copper, gold, iron ore, molybdenum, coal, uranium (reported), rubies, sapphires and jade. Postwar recovery has been slow.

More than half of Burma is forested, with government reserves totaling 31,637 square miles. Teak, valuable for naval construction, is the main timber product. Its cutting is strictly controlled. Natural-rubber production was estimated at 15,800 metric tons in 1950. Fisheries are exploited both along the coast and inland.

Burma forms part of the Asiatic monsoon region, but its climate is modified by the topography. There are three seasons: (1) cool and rainless (November through February); (2) hot and rainless (March through May) and (3) rainy (June through October). At Rangoon the annual temperature range is only 10°; at Mandalay, about 20°. Annual rainfall at Rangoon is about 100 inches; at Mandalay, 33.4 inches.

Chile (Republic) (República de Chile)

Area: 286,323 square miles.

Population (est. Dec. 31, 1950): 5,862,000 (white, 30%; mestizo, 65%; Indian, 5%).

Density per square mile: 20.4.

President: Carlos Ibañez.

Principal cities (est. 1950): Santiago, 1,200,000 (capital); Valparaíso, 184,000 (port); Viña del Mar, 96,000 (resort center); Concepción, 90,000 (farming center); Antofagasta, 48,000 (nitrate).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. Chile has had a relatively tranquil history amid South America's long

record of revolution and strife, but it has suffered repeated labor disturbances in recent years.

Europeans first arrived in 1536, when Diego de Almagro, an associate of Pizarro, led an unsuccessful invasion from Peru. Five years later another Spaniard, Pedro de Valdivia, founded Santiago. On Sept. 18, 1810, Chile rebelled against Spanish rule, but independence was not won completely until 1818, when Bernardo O'Higgins and José de San Martín finally crushed the Spanish armies.

Chile, which has never lost a war, fought with Bolivia and Peru in 1879-83 and won the province of Antofagasta, Bolivia's only outlet to the Pacific, as well as extensive areas from Peru. In World War I, Chile was neutral. The overthrow in 1931 of Colonel Carlos Ibáñez, who had seized power in 1927, was followed by a brief chaotic period in which seven presidents tumbled in and out of office, but Dr. Arturo Alessandri (1932-38) did much to restore Chile's political and economic order.

Pedro Aguirre Cerda, victor in the 1938 elections, initiated an extensive socialist program before his death on Nov. 25, 1941. The term of Juan Antonio Ríos, elected as Radical candidate of the Popular Front in 1942, was marked by political dissension and labor difficulties. Under both external and internal pressure, the latter notably from its strong Communist party, Chile finally broke relations with the Axis on Jan. 20, 1943, but did not declare war on Japan until Feb. 14, 1945.

Ríos died June 27, 1946. Following a special election, Gabriel González Videla, candidate of a leftist-center coalition, became president on Nov. 3, 1946. His administration was plagued by recurrent labor disputes, some of which were said to be Communist-inspired. He pursued a strong anti-Communist policy. Carlos Ibáñez was elected to succeed him Sept. 4, 1952.

GOVERNMENT AND DEFENSE. The nation elects a president every six years, a Senate of forty-five members every eight years (one half renewable every four years) and a Chamber of Deputies of 147 members every four years. The president is assisted by a cabinet responsible to him but subject to impeachment by Congress, which also may override a presidential veto by two-thirds vote. All literate male citizens over twenty-one may vote in elections.

Military service is compulsory, beginning at twenty with an initial training period of nine months, after which a civilian is on reserve until the age of forty-five. In 1948 the army was unofficially estimated at 25,000. The navy, normally 12,000 men strong, had in 1952 one old battleship of 28,000 tons, two light cruisers (acquired from the U. S. in 1951), six destroyers, six

frigates, seven submarines, two coast defense ships and other smaller craft. The air force was expanded during World War II.

SOCIAL AND ECONOMIC CONDITIONS. Education, free and compulsory between 7 and 15, is directed by the central government. In 1943, illiteracy was estimated at 24 per cent, third lowest in Latin America. School enrollment in 1948 was about 739,000. There are five universities, including the State University of Chile. About 20 per cent of the budget is devoted to education.

The base of the white population is Spanish, although there are some German, English, Irish and Scotch. Roman Catholicism is the dominant religion, but church and state were separated in 1925.

Chilean agriculture is mostly confined to the temperate central valley, similar to that of California. The available productive land is extremely limited, and most of it must be irrigated. Wheat (1950: 831,000 metric tons) is the leading crop, followed by potatoes, oats, barley, corn, string beans and fruits. Grapes, next to wheat in acreage, produced 84,000,000 gallons of wine in 1951. Feudal-type estates, averaging 2,500 acres, predominate. Cattle in 1951 totaled 2,160,000 and sheep (1949) 6,345,000. Wool production in 1949 was 17,000 metric tons.

The livestock industry does not supply local needs, but wool is used in Chilean textile mills, and wool and hides are exported.

Foreign trade (in millions of U. S. dollars):

	1949	1950	1951
Exports	297	282	370
Imports	305	248	329

In 1951 the leading customers were the U. S. (51%), Argentina (7%), Britain (6%) and Germany and France (each 4%); leading suppliers were the U. S. (55%), Argentina (8%) and Britain (7%). Chief exports were copper (53%) and nitrate (18%). Leading imports were sugar, petroleum and products and cotton textiles.

Although Chile dreams of great industrial development and has all the necessary raw materials except high-grade coal and tin, progress continues slowly. Except for mineral processing, most manufacturing is of low-priced consumer's goods, particularly textiles. A steel industry was established in 1946; production in 1951 amounted to 204,000 short tons.

Highway mileage totaled approximately 31,250 in 1947, about a third improved. Rail mileage is 5,434, partly electrified. Civil aviation is highly developed in the interior, and several international lines serve the country. According to *Lloyd's Register*, the merchant marine had 85 ves-

sels (100 tons and over), aggregating 168,349 gross tons, on June 30, 1951.

Recent financial data are as follows (in billions of pesos):

	1950	1951*	1952†
Revenue	18.9	26.0	29.4
Expenditure	20.6	27.3	29.4

* Provisional. † Budget estimate.

The funded foreign debt totaled about \$215,000,000 on Dec. 31, 1949; the direct debt on Dec. 31, 1948, was 6,762,000,000 pesos plus guarantees of 1,397,000,000 pesos.

The basis of the country's economy is its mineral resources in the northern desert provinces of Atacama, Antofagasta and Tarapacá, where the only natural nitrate in the world is found. Some 60 per cent of the world's iodine is obtained as a by-product of nitrate processing. Chile's world monopoly in nitrate, however, declined in importance with development of the synthetic product.

The world's largest copper reserve, estimated at 134 billion pounds, is in Chile, and also more than 900 million tons of high grade iron ore. The reserve of Chilean coal, noted for quantity rather than quality, exceeds two billion tons.

Mineral production in 1951 was as follows: coal, 2,211,295 metric tons; copper, 379,707 tons; iron ore, 3,174,338 tons; nitrate of soda, 1,684,407 tons; gold, 173,642 ounces; silver, 983,468 ounces. Mercury, manganese ore, cobalt, zinc, tungsten and molybdenum also are produced, and deposits of uranium have been reported. Oil was first produced in Tierra del Fuego in Dec. 1945. Production in 1951 was about 700,000 barrels.

Forests, estimated to cover 35 million acres in the southern provinces, yield a variety of commercial wood, including conifer, laurel and magnolia. Fishery products include cod, eel, oysters, sawfish, sardines, tuna and whale-oil.

TOPOGRAPHY AND CLIMATE. A narrow, mountainous land, Chile is 2,661 miles in length, and varies from 46 to 250 miles in width; one-third of its area is covered by the towering ranges of the Andes. In the north is the mineral-rich Atacama Desert, between the coast mountains and the Andes. In the center is a 700-mile-long valley, thickly populated, between the Andes and the coastal plateau. In the south, the Andes border on the ocean.

At the southern tip of Chile's mainland is Punta Arenas, the southernmost city in the world, and beyond that lies the Strait of Magellan and Tierra del Fuego, an island divided between Chile and Argentina. The Juan Fernández Islands, in the South Pacific about 400 miles west of the mainland, and Easter Island, about 2,000 miles west, are Chilean possessions.

Chile's short rivers are useful only for irrigation and as sources of electric power. The country has many ports but few good harbors, and most of the tonnage must be handled by lighters.

In Chile's extreme north the days are hot, the nights warm on the coast and cool in the interior. Central Chile's climate is comparable to that of southern California, and southward in the lake regions the climate is similar to that of the U. S. Pacific Northwest. In the extreme south, fogs and storms keep the mean temperature low. Santiago has extreme recorded temperature ranges of 25° and 96°. Snow is rare.

China (Republic)

(Chung-Hua Min-Kuo)

Area: 3,858,900 square miles.*

Population (est. 1950): 475,000,000.*

Density per square mile: 123.1.

President, Nationalist China: Generalissimo Chiang Kai-shek.

Premier: Chen Cheng.

Chairman of People's Council: Mao Tse-tung.

Premier: Chou En-lai.

Principal cities (est. 1950): Shanghai, 5,406,644 (chief port, industrial and financial center); Peiping (Peking), 1,940,290 (capital, Communist China); Tientsin, 1,785,813 (commercial center); Mukden, 1,551,317 (Manchurian industrial center); Canton, 1,495,694 (southern commercial center); Port Arthur, 1,054,466 (northern seaport and naval base); Chungking, 1,038,683 (river port; trade center); Nanking, 1,020,000 (former Nationalist capital).

Monetary unit: Chinese dollar.

Language: Chinese.

Religions: Confucianism, Buddhism, Taoism, Mohammedanism, Christianity.

* Including Province of Formosa (Taiwan), Manchuria and Tibet; excluding Outer Mongolia.

HISTORY. By 2000 B.C., the Chinese were living in the Hwang Ho basin, and they had achieved an advanced stage of civilization by 1200 B.C. The great philosophers, Lao-tse, Confucius, Mo Ti and Mencius lived during the Chou dynasty (about 1122 to 249 B.C.). The warring feudal states were first united under Emperor Ch'in Shih Huang Ti, during whose reign (246-210 B.C.) work was begun on the Great Wall. Under the Han dynasty (206 B.C. to A.D. 220) China prospered and opened trade with the West.

The T'ang dynasty (618-907) has often been called the golden age of Chinese history. Painting, sculpture and poetry flourished under royal patronage, and printing made its earliest known appearance.

The Mings, last of the native rulers (1368-1644), overthrew the Mongol or Yuan dynasty (1280-1368) established by Kublai Khan, whose dominions extended into eastern Europe. The weakening Mings

in turn were overthrown in 1644 by invaders from the north, the Manchus.

The Chinese closely restricted foreign activities, and by the end of the 18th century only Canton (and the Portuguese port of Macao) were open to European merchants. Following the Anglo-Chinese War of 1839-42, however, several treaty ports were opened and Hong Kong was ceded to Britain. Treaties signed after further hostilities (1856-60) weakened Chinese sovereignty and removed foreigners from Chinese jurisdiction. The disastrous Chinese-Japanese War of 1894-95 was followed by a scramble for Chinese leases and concessions by European powers which resulted in the nationalist Boxer Rebellion (1900), suppressed by an international force.

The death of the Empress Dowager Tzu Hsi in 1908 and the accession of the infant emperor Hsian T'ung (Pu-Yi) were followed by a nation-wide rebellion led by Dr. Sun Yat-sen, who became first President of the Provisional Chinese Republic in 1911. The Manchus abdicated on Feb. 12, 1912. Dr. Sun resigned in favor of Yuan Shih-k'ai, who suppressed the republicans but was forced by a serious rising in 1915-16 to abandon his intention of declaring himself Emperor. Yuan's death in June, 1916, was followed by years of civil war between rival militarists and Dr. Sun's republicans. The death in 1925 of Dr. Sun, who had controlled only the Canton area in opposition to the recognized regime, was followed by a revival of the Kuomintang party, which practically deified him. Nationalist forces, led by Gen. Chiang Kai-shek and advised originally by Communist experts, soon occupied most of China, setting up a Kuomintang regime in 1928. Internal strife continued, however, and Chiang broke with the Communists.

An alleged explosion on the South Manchurian Railway on Sept. 18, 1931, brought invasion of Manchuria by Japanese forces, who installed the last Manchu emperor, Henry Pu-Yi, as nominal ruler of the puppet state of "Manchukuo." Japanese efforts to take China's northern provinces in July, 1937, were resisted by Chiang Kai-shek, who meanwhile had succeeded in uniting most of China behind him. Within two years, however, Japan seized most of the ports and railways. The Kuomintang government retreated first to Hankow and then to Chungking, while in "Occupied China" the Japanese set up a puppet government at Nanking headed by Wang Ching-wei. In 1943 Chiang became political as well as military leader of "Free China."

When the Japanese surrendered in 1945, a treaty was signed with the Soviet Union providing for Soviet withdrawal from Manchuria, joint Chinese-Soviet control of Manchurian railways for 30 years, a joint

Chinese-Soviet naval base at Port Arthur and a free port at Dairen.

The surrender of Japan also touched off a race between Nationalist and Communist forces for control of China. Agreement was reached for the establishment of a Political Consultative Council representing all groups on Oct. 10, 1945, but fighting broke out again early in 1946 with the Communists controlling northern and central Manchuria and northern China.

The civil war continued without decisive results until late 1948, when the Communists loosed new drives, which by the end of 1949 had brought all China except the island of Formosa under their control. Barricaded on Formosa, the Nationalist regime was somewhat weakened by internal dissension and had little means at its disposal to make any effective counter-attack upon the mainland. The U. S., however, after the outbreak of the Korean war in June, 1950, promised naval and air aid to repel any invasion of Formosa. Chiang, who had stepped down from the presidency on Jan. 21, 1949, reassumed that post on Feb. 28, 1950, and on Mar. 8 appointed Chen Cheng premier.

The Communists meanwhile set up in September, 1949, a soviet-type government. After prolonged negotiations, the People's government and the Soviet Union signed a 30-year treaty of friendship and mutual aid on Feb. 14, 1950; its published terms provided for a \$300,000,000 Soviet credit and for the return of the Changchun railroad to China and the eventual return of Port Arthur and Dairen.

The Communist regime subsequently was recognized as the legal government of China by many nations but was unsuccessful in its efforts to secure a place in the U. N. It threw several hundred thousand men into the Korean conflict in Oct. 1950, in a futile effort to drive U. N. forces from Korea. Although the Chinese Communists agreed to a cease-fire line in Korea on Nov. 27, 1951, subsequent peace negotiations with the U. N. command were stalemated. **GOVERNMENT.** Under the Nationalist constitution of 1947, the highest state organ is the National Assembly, which meets once each three years and is the "sovereign organ of the people." Its members are elected for 6-year terms on the basis of territorial and professional representation. The Assembly elects the President and Vice President of the Republic for 6-year terms. The organs of government are five in number—the Executive Yüan (cabinet), whose members, headed by the Premier, are appointed by the President with the concurrence of the Legislative Yüan; the Legislative Yüan, which exercises legislative functions when the Assembly is not in session and has ultimate control over the cabinet; the Control Yüan, broadly corresponding to an

"upper house," which has general supervisory and censorial functions; the Judicial Yuan, the highest court of justice; and the Examination Yuan, which controls civil service.

The constitution of the People's republic was approved by a political consultative conference on Sept. 27, 1949, and was proclaimed on Oct. 1. It established as the highest organ of the state the people's government council, which is headed by a chairman and has legislative functions. The government council established as the highest executive organ a state administrative council (cabinet) headed by the premier. Effective control is exercised throughout by the central committee of the Chinese Communist party.

DEFENSE. Military service is compulsory in Nationalist China; the initial training period is one or two years. The fighting strength of the army in 1952 was upwards of 500,000 men. The air force had about 200 planes and the navy, some 100 small vessels. About 80 per cent of the budget was tabbed for military purposes.

Supreme control of the Communist armed forces is vested in the people's revolutionary military council. Communist forces at the end of 1951 numbered about 5,000,000. The air force had upwards of 1,000 Soviet-built planes. Naval strength was negligible.

EDUCATION. Emphasis on the mainland is upon technical training and inculcation of the Communist ideology. In 1951 there were reported to be 227 colleges and universities, with 134,000 students; 4,115 secondary schools, with about 1,300,000 students; and 400,000 primary schools, with about 37,000,000 pupils.

The mass literacy movement has been accompanied by the replacement of the old classical or "dead" Chinese language with the popular vernacular (Pai-hua) of the Mandarin dialect, employing perhaps 1,000 of the most essential of the many thousands of Chinese ideographs.

POPULATION AND RELIGION. Estimates of China's population vary and are only calculated guesses, since no national census has ever been taken. The population is quite unevenly distributed, with most of it in the following five areas: the central portion of the northern plain (Shantung); the Yangtze Kiang delta; a coastal belt extending southward from the Yangtze delta to the Canton delta; the Hupeh basin centered around Hankow; and the isolated basin of Szechwan, far to the west. Most Chinese who are not Christians or Moslems practice one of the three native religions—Confucianism, Buddhism or Taoism. Almost 10 per cent of the population is estimated to be Moslem; there are also many Roman Catholics and Protestants.

AGRICULTURE. In China, nearly 80 per cent of the population depend on the land for livelihood. Subsistence crops are necessarily emphasized, but China is still not self-sufficient in food. Cultivation is intensive, holdings are small, and irrigation is widely practiced. The three most important food crops are rice (1951, excluding Formosa: 48,300,000 metric tons, paddy), wheat (1949, excluding Manchuria and Formosa: 20,600,000 tons) and maize (1949: 6,500,000 tons).

In northern China, wheat, barley, corn, sorghum, millet and other cereals, and beans and peas predominate, whereas in the south, rice, sugar and indigo are most important. The Yangtze basin, one of the most favored agricultural regions in the world, is China's premier granary. Tea, the chief beverage, is grown mainly in the central uplands, coastal ranges and Szechwan; 11,400 metric tons were exported in 1950.

Silkworm culture is practiced widely, especially in the lower Yangtze valley. Cotton, the major purely industrial crop, runs from 2,500,000 to 4,000,000 bales a year. Soybeans are of ever-increasing importance. Other crops include fibers, tobacco, vegetable oils, cane sugar and many medicinal plants and spices.

The urgent need for subsistence crops has confined grazing grounds for sheep and cattle to the dry northwest and to mountain pastures. However, such animals as goats, poultry and especially pigs are raised everywhere.

The Communist land-reform program is reported to be proceeding gradually in carefully planned stages.

INDUSTRY. Industrially, China is still in its infancy. Development has been mainly in the erection of textile mills, silk and flour mills, match factories, tanneries and a few steel and cement mills. The production of consumer's goods far exceeds that of producer's goods, which must still be imported. Much of the industry which had been developed in the lower Yangtze valley and the Shanghai area was moved westward in 1938 and 1939 to escape Japanese capture, and southward in 1948 to escape Communist control.

Postwar industrial rehabilitation proceeded at a slow pace because of the high cost of labor and materials, high interest rates, power shortages and the unsettled political situation. The Communist regime is reported to be concentrating upon Manchuria as China's industrial center and to be shifting some industries to the northwest.

TRADE. Foreign trade statistics, in billions of Chinese dollars, are as follows:

	1946	1947	1948*
Exports	420	6,432	1,399
Imports	1,909	14,395	1,193

* Gold dollars.

Tibet, north and northeast of the Himalayas, is the highest country in the world, averaging 16,000 feet in elevation and having many peaks ranging up to more than 25,000 feet. Chinese suzerainty over Tibet was established in the 18th century. The area was invaded by a British expeditionary force in 1904, but the Anglo-Russian Convention of 1907 recognized China's influence and stipulated that neither Russia nor Britain should interfere in Tibet's affairs.

The only country in the world under complete ecclesiastical control, Tibet is a theocracy ruled by the Dalai Lama (born June 6, 1935), who was invested with full powers in November, 1950.

Chinese Communist troops invaded the area in October, 1950. An agreement signed with Communist China in May, 1951, recognized the Dalai Lama as spiritual and temporal ruler but made Tibet virtually a Chinese province.

The religion and predominant factor in Tibet's social system is Lamalism, a late form of Buddhism modified by animism and primitive magic. Education is in the control of the many monasteries, some of which have more than 1,000 monks. A large number of the population are lamas, mostly celibates. Both polyandry and polygyny are practiced.

KWANTUNG—Status: Chinese territory under Soviet occupation.

Area: 1,444 square miles.

Population (est. 1938): 1,750,000.

Kwantung, at the southern end of Manchuria's Liaotung peninsula, was leased to Russia by China in 1898. The lease was transferred in 1905 to Japan, which administered the territory until the end of World War II. The Chinese-Soviet treaty of 1945 provided for the return of the territory to China and for joint control of the naval base of Port Arthur; Dairen was to be a free port. The Soviet Union, however, refused to honor these provisions of the treaty and retained sole control of the area.

Port Arthur has an excellent ice-free, deep-water harbor which gives it great strategic importance. Dairen, the principal city (pop. 533,696), also has an ice-free harbor. Both Dairen and Port Arthur are connected with the Manchuria railways.

Colombia (Republic)

(República de Colombia)

Area: 439,714 square miles.

Population (est. 1951): 11,294,844 (mixtizo 68%; white, 20%; Indian, 7%; Negro, 5%).

Density per square mile: 25.7.

President: Roberto Urdaneta Arbelaez (acting).

Principal cities (est. 1950): Bogotá, 543,-590 (capital); Medellín, 264,560 (mining); Barranquilla, 255,050 (chief port); Cali, 165,200 (coffee, mining).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. Colombia, nearly nine times the size of New York state, is the only country in South America with frontage on both the Pacific and the Caribbean. Its northern coast was one of the first parts of the Americas to be visited by Spanish explorers. Darien, the first permanent European settlement on the American mainland, was founded in 1510, Santa Marta in 1525, and Bogotá in 1538.

New Granada, as Colombia was called until 1861, was comparatively neglected during the Spanish colonial era. After winning independence from Spain during a fourteen-year struggle ending in 1824, the country established a republic in 1831, including the area that now is Panamá. Intermittent civil war plagued Colombia until 1903, when Panamá, with United States backing, seceded from the republic.

The century-old boundary dispute with Peru over Leticia almost led to war in 1931, but a settlement was arranged through the League of Nations in 1934-35.

The administration of Alfonso López, Liberal president in 1934-38, introduced constitutional and labor reforms and the removal of state protection for the Roman Catholic Church. López won the presidency again in 1942 but resigned on Aug. 7, 1945. The provisional president, Alberto Lleras Camargo, was also a Liberal, but when the Liberal party split again in the elections of May 5, 1946, Mariano Ospina Pérez, a Conservative, won. The Liberals, however, retained control of Congress.

Bogotá, host at the time to the Ninth International Conference of American States, was swept by a destructive but unsuccessful revolt on April 9, 1948, following the assassination of Jorge Eliécer Gaitán, extremist Liberal leader. The 1949 presidential election, held on Nov. 27 and boycotted by the Liberals, was won by the Conservative candidate, Laureano Gómez, who took office on Aug. 7, 1950. Gómez requested a leave of absence on Oct. 31, 1951, and Congress named Roberto Urdaneta Arbelaez acting president.

GOVERNMENT AND DEFENSE. Colombia's president, who appoints his own cabinet, is elected every four years and is not eligible to succeed himself immediately. The Senate—upper house of Congress—has 63 members elected for four years by direct vote. The House of Representatives of 123 members is directly elected for two years. All male citizens over 21 may vote.

A term of military service is compulsory for men between twenty-one and thirty.

The strength of the army in 1948 was unofficially reported at 14,000. With 2,500 personnel, the navy has two modern destroyers, three sea-going gunboats, three patrol craft, four river gunboats, one frigate and several launches. An infantry battalion and a frigate served in Korea.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is free and technically compulsory in Colombia, whose last published illiteracy figure was 48.4 per cent. By law, 10 per cent of the national budget goes for education. In 1946, 12,324 primary schools reported enrollment of 711,798 pupils, and there were 2,267 other schools with total enrollment of 116,412. In addition to the National University, founded at Bogotá, 1572, there are four departmental universities and several private ones.

Because of the former isolation of the interior, the language and manners in Bogotá are more purely Castilian than anywhere else in South America. The white race retains its social and economic dominance over Indians and Negroes, but race mixture is steadily reducing its numbers. In recent years, notably since adoption of a new labor code in 1944, the working classes have made important gains, including minimum wages, vacations and holidays, accident and sickness benefits, and the protected right of union organization.

Most of the people live by farming and cattle herding, but only a small part of the land is cultivated, and that by primitive means. Colombia's coffee, by far the principal crop, is a mild variety that does not compete with Brazilian types. Production in 1951 was 5,576,640 bags of 132 pounds each. Other crops include bananas, coconuts, tobacco, sugar cane, corn, cotton, cacao, beans, rice, tropical fruits and, in the temperate regions on plateaus and in mountain valleys, cereals and potatoes. Cattle were estimated at 15,512,000 in Dec. 1950, according to U. N. statistics.

The leading manufacturing industries are foodstuff processing, textiles and beverages. In 1945 there were 7,853 factories employing 135,400 workers.

To protect foreign trade balances, the government has taken over control of exports and imports. Trade statistics, in millions of pesos, are as follows:

	1949	1950	1951*
Exports	626	771	1,053
Imports	516	711	872

* Provisional.

In 1951 the U. S. took 81% of the exports and supplied 89% of the imports. The leading exports were coffee (81%), petroleum (16%), bananas (2%) and refined sugar.

Difficult terrain makes Colombia's rail and road building costly. Rail mileage, in-

cluding many short feeder lines, was put at 2,159 in 1949; and improved highway mileage at 11,200.

Air transit is now well advanced, and there are 4,620 miles of navigable waterways. The national merchant marine service has been combined with those of Venezuela and Ecuador.

Colombia's 1952 budget provided for expenditures of 632,700,000 pesos. The public debt on Dec. 31, 1951, amounted to 567,055,667 pesos.

TOPOGRAPHY, NATURAL RESOURCES AND CLIMATE. Through the western half of the country, three Andean ranges run north and south, merging into one at the Equadorean border. The eastern half is a low, jungle-covered plain, drained by spurs of the Amazon and Orinoco, inhabited mostly by uncivilized Indians.

Colombia's mountain ranges have many lofty peaks, including Huila, 18,700 ft., and Tolima, 17,109 ft. The fertile plateau and valley of the eastern range is the most densely populated part of the country.

Rich in minerals, Colombia has the fifth largest oil industry in Latin America (70 per cent controlled by U. S. interests). Production in 1951 was 38,398,000 barrels. The country is also rich in platinum and has world-famous emerald mines at Muzo in the eastern Andes. Mineral production includes crude platinum (1951: 17,157 troy ounces), gold (430,723 ounces) and silver (129,773 ounces).

Colombian forests, covering a large part of the country from the western Andes to the eastern plain, are a great but little exploited source of wealth. Products include vanilla, quinine, ipecac, sarsaparilla, gums and balsams, tanning agents, dyewoods, hardwoods and rubber.

Alligators along many of the large rivers are hunted for hides. The rivers and lakes abound with fish and turtles, a source of commercial tortoise shell.

Although Colombia lies almost entirely in the north torrid zone, its climate is tempered by prevailing winds and high altitudes in the western, mountainous area. High temperatures and excessive moisture prevail in the lower areas, along the coast and in the larger river valleys. The dry season occurs in summer.

Costa Rica (Republic) (República de Costa Rica)

Area: approximately 19,238 square miles. Population (est. Dec. 31, 1951): 838,084 (white and mestizo, 97%; Negro, 2%; Indian, 1%).

Density per square mile: 43.5.

President: Otilio Ulate Blanco.

Principal city (census 1950): San José, 86,909 (capital and only large city).

Monetary unit: Colón.

Language: Spanish.

Religion: Roman Catholic (state).

HISTORY AND GOVERNMENT. Costa Rica was discovered and probably named by Columbus in 1502. A Spanish province as early as 1530, it proclaimed its independence in 1821, and was a member of the Central American Union from 1823-38. Aside from boundary disputes with Panamá and Nicaragua, Costa Rica's modern history was comparatively tranquil until the spring of 1948, when a brief civil war followed congressional annulment of presidential elections in which Otilio Ulate Blanco defeated the Government candidate. Leftist-supported government forces surrendered on April 20, and on May 8 an 11-man junta assumed control of the nation pending the drafting of a new constitution by a Constituent Assembly elected on Dec. 8, 1948. The Assembly met on Jan. 16, 1949, confirmed Ulate as president-elect, and, after drafting the new constitution, dissolved on Nov. 8, on which date Ulate took office.

Under the 1949 constitution the president and one-house Congress of 45 members are popularly elected for four years.

The army was abolished in 1950. There is a police force of 1,000 and 700 coast guardsmen.

SOCIAL AND ECONOMIC CONDITIONS. Costa Rica's illiteracy rate of approximately 15 per cent is the lowest in Central America, with elementary education free and compulsory. In 1951 there were 1,139 primary schools (116,157 pupils) and, in 1950, 24 secondary schools and 7 technical schools. The National University is at San José. English has been taught in all primary schools since 1944.

Coffee, bananas, abacá fiber and cacao are the basic products of Costa Rican agriculture, which is characterized by the prevalence of small land holdings. Cotton, sugar cane, tobacco, corn, beans, rice and potatoes are subsidiary crops. Cattle are raised mainly for dairying.

Coffee production totaled 335,332 bags of 132 lb. each in 1950-51.

Manufacturing is virtually limited to locally-consumed products, chiefly furniture, fine woodwork and tobacco.

Exports in 1951 totaled \$39,740,518 (74% to the U. S.); imports, \$55,740,518 (66% from the U. S.). Leading exports included coffee (56%), bananas (27%), cacao and abacá fiber. Leading imports are textiles, machinery, vehicles, oil, and iron and steel products.

In 1948, the rail system totaled approximately 62 miles; improved highways, 1,020 miles.

The 1952 budget balanced revenue and expenditure at 143,500,000 colones. The

public debt on Dec. 31, 1951, was 367,007,-979 colones.

Gold (1948 exports: 1,322 troy oz.) is the most valuable mineral, although silver, manganese, mercury and sulfur also exist. Oil indications have been found in the south. The mountain slopes yield such forest products as balsa, cedar, dyewood, mahogany and rosewood. The fisheries along the coast are valuable; tuna, shark-livers and live turtles are important products.

TOPOGRAPHY AND CLIMATE. Most of Costa Rica is elevated tableland, from 3,000 to 6,000 feet above sea level, with sharp slopes to the Caribbean and Pacific. Cocos Island, about 300 miles off the Pacific Coast, is under Costa Rican sovereignty; although it is mostly tropical jungle, it is of potential strategic importance in the defenses of the Panama Canal.

The weather is cool and refreshing in the Costa Rican highlands, with average temperatures of 68°, and San José is increasing in importance as a tourist resort. Along the coasts, the mean annual temperature is about 82°. The rainy season is usually from April or May to December.

Cuba (Republic) (República de Cuba)

Area: 44,217 square miles.

Population (est. Dec. 31, 1950): 5,415,000 (white and mulatto, 75%; Negro, 24%; Mongoloid, 1%).

Density per square mile: 122.5.

President: Fulgencio Batista y Zalvidar (provisional).

Principal cities (census 1943): Havana, 659,883 (capital, industrial center); Santiago de Cuba (1946 est.) 152,000 (seaport, mining); Marianao, 120,163 (suburb of Havana); Camagüey (1946 est.) 87,000 (cattle, sugar); Matanzas, 54,844 (seaport, sugar).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. The history of Cuba, largest of the many Caribbean islands, began for white men with discovery by Columbus on his first voyage in 1492. It was a Spanish colony until 1898, except for brief British occupancy in 1762-63. Open war raged between Cuban rebels and Spanish troops from 1867 to 1878. Fighting broke out again in 1895, and when the United States threatened to intervene, Spain felt its national dignity had been wounded. Strained relations between Spain and the U. S. led to war when the U. S. battleship *Maine* was blown up in Havana harbor in Feb., 1898. At the end of the brief Spanish-American War, Spain gave up Cuba.

Until creation of the Cuban republic in 1902, the island was ruled by United States military authorities. For the first thirty-two years of the republic's life, the United

States held the right to intervene in any crisis—a right which was invoked during insurrections in 1906, 1912 and 1917.

Corruption bedeviled Cuba after World War I, particularly during the eight-year presidency of Gerardo Machado, who was ousted in a 1933 revolution. Five different presidents tried to rule in the next few months; out of this political whirligig came the dictatorship of Fulgencio Batista, who climbed almost overnight from army sergeant to army commander-in-chief. In 1940 Batista legalized his reign by being elected to a four-year presidential term. He was succeeded in 1944 by Dr. Ramón Grau San Martín. Carlos Prío Socarrás won the June 1948 elections and took office Oct. 10 for a 4-year term. Prío was ousted March 10, 1952, however, by Batista, the former dictator, who became provisional president on April 4.

GOVERNMENT. Cuba's president is elected for a 4-year term by direct popular vote, in which women take part. The Cabinet, though named by the president, is responsible to the Congress—a 54-member Senate and a 136-member House, both elected for four years. Much Cuban lawmaking is done through presidential decree, reviewable by the Supreme Court. Cuban politics are dominated by personalities, and there are frequent shifts in political grouping.

Compulsory military service was established in 1942. The army numbers about 17,000; the navy, 3,000, manning some twenty small coastal craft. The air force has 50 combat planes. Two U. S. air bases and one naval base built in World War II at a cost of more than \$30,000,000 were turned over to Cuba in 1946. However, the United States retained its long-held naval base at Guantánamo.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and compulsory from 7 to 14. Schools numbered about 5,400 in 1946, enrolling some 520,000 pupils. Literacy was estimated at close to 70 per cent. The University of Havana, founded in 1721, has about 15,000 students.

Half of the employed are engaged in agriculture, which normally accounts for more than 90 per cent of the exports. Often jolted by fluctuations in the price of sugar, of which it produced about 6,349,000 short tons in 1951, Cuba is now seeking to vary its agricultural production. About two-thirds of the cultivated area is devoted to sugar cane. Other important crops are tobacco (1950-51 output: 34,500 metric tons); coffee (547,000 bags); cacao, fruits, vegetables, henequen, corn, pineapples and beans. The livestock and dairy industry has progressed greatly.

Manufactured products include sugar, molasses, syrup, brandy, rum, alcohol, cigars, cigarettes, cigar boxes, sponges,

cement, cordage, salt, dressed hides, dairy products and canned goods. The leading industry is the processing of sugar cane and its products.

Foreign trade (in millions of pesos):

	1949	1950	1951*
Exports	578	642	766
Imports	451	515	640

* Provisional.

Leading customers in 1951 were the U. S. (54%), Britain (14%) and Japan (5%). The U. S. was by far the leading supplier (77%). Leading exports were sugar and molasses (88%) and tobacco (5%).

Mainline railroads totaled 3,017 miles in 1949, plus 7,870 miles of industrial trackage, mostly on sugar estates. Improved highways totaled 2,320 miles. Domestic airlines are operated by the Cuban National Aviation Company, a Pan American subsidiary.

The preliminary budget for the fiscal year 1951-52 balanced revenue and expenditure, ordinary and extraordinary, at 299,800,000 pesos. As of Dec. 31, 1949, the consolidated public debt was 105,880,000 pesos.

TOPOGRAPHY, NATURAL RESOURCES AND CLIMATE. Long, narrow Cuba has maximum dimensions of 730 by 160 miles, and is approximately the same size as Pennsylvania. It has mountainous areas in the southeast, central area and west, but the rest is flat or rolling. The coastline of more than 2,100 miles is indented by many large bays. Cuba's numerous short rivers are of slight importance commercially.

Rich mineral beds mostly in the eastern province of Oriente, include iron, copper, manganese, chromium and nickel. Iron ore reserves estimated at 3,500,000,000 tons, are 90 per cent held by U. S. steel interests. Virtually all mineral exports go to the United States.

Cuba has an estimated 3,500,000 acres of wooded land, with valuable cabinet woods, such as cedar and mahogany, as well as fibers, resins and oils. Lobsters, oysters, crabs and shrimp are major sea food products.

The tempering influence of the trade winds on the island's tropical climate makes Havana's average temperature 77° with a range of only 10° (71° to 81°). The dry season lasts from November to April, and the warmer wet season occurs thereafter. Mean annual rainfall at Havana is about 50 inches.

Czechoslovakia (Republic)

(Československa Republika)

Area: 49,330 square miles (excluding Ruthenia).

Population (est. Dec. 31, 1949): 12,519,000

000; (Czech, 67.0%; Slovak, 23.7%; German, 3.2%; Magyar, 3.2%; Polish, Jewish and others, 2.9%).

Density per square mile: 253.8.

President: Klement Gottwald.

Premier: Antonin Zapotocky.

Principal cities (est. 1948): Prague (Praha), 932,024 (capital, industrial center); Brunn (Brno), 277,196 (textiles); Ostrava (Moravska Ostrava), 183,794 (iron and steel products); (1947): Bratislava, 172,664 (Danube port); Pilsen (Plzeň), 118,152 (Skoda steel works).

Monetary unit: Koruna.

Religions (1930): Roman Catholic, 73.54%; Protestant, 7.67%; Czechoslovak Church, 5.39%; Greek Catholic, 3.97%; Jewish, 2.42%; others, 7.01%.

HISTORY. Few nations have had a more tragic history than Czechoslovakia, which twice won and lost its independence within 30 years. Born out of World War I, the young republic was an early victim of Nazi aggression in 1938-39. At its rebirth in 1945 following World War II, it enjoyed a measure of its traditional democracy under the shadow of Soviet control. During the next three years Czechoslovakia made by far the greatest economic progress of all the Soviet satellites, but the government was subjected to increasing Communist pressure, climaxed in the spring of 1948 by the Communists' seizure of control and the resignation of President Beneš.

It was probably about the 5th century, A.D., that the ancestors of the Czechs and Slovaks settled in the region of modern Czechoslovakia. Slovakia passed under Magyar domination, but the Czechs founded the kingdom of Bohemia, which was among the most powerful in Europe for centuries. German encroachment began in the 12th century and was furthered by the election in 1526 of a Hapsburg as Bohemian king. After the Czechs rebelled in 1618 and were defeated at the Battle of White Mountain in 1620, they were ruled for the next 300 years by the Hapsburgs as part of the Austro-Hungarian Empire. In World War I, Czech patriots, notably Thomas G. Masaryk, went abroad to promote support for Czech independence, while Czech legions fought against the Central Powers. On Oct. 28, 1918, Czechoslovakia proclaimed itself a republic; shortly thereafter Masaryk was unanimously elected first president.

Between World Wars I and II, Czechoslovakia supported the League of Nations, formed the Little Entente with Yugoslavia and Rumania, and co-operated closely with France. President Masaryk resigned in 1935, two years before his death at the age of eighty-seven, and was succeeded by Dr. Eduard Beneš.

Meanwhile, the German plan of aggression was under way. Czechoslovakia's German minority, led by Konrad Henlein, began demanding autonomy. The government granted many concessions which, of

course, were not enough to suit the Germans. The beginning of the end came at the Munich conference on Sept. 30, 1938, when France and Britain agreed that the Nazis could take the Czech Sudetenland on the German border. Dr. Beneš resigned on October 5, and Czechoslovakia became a federal union in the German orbit. The Poles, in the meantime, had seized Czechoslovakia's Teschen area, and Hungary had taken areas in Slovakia and Ruthenia. In March, 1939, the Nazis set up Slovakia as a puppet state, declared Bohemia and Moravia to be Nazi protectorates, and gave Hungary the remainder of Ruthenia. Both Slovakia and Bohemia-Moravia were occupied by German troops.

Czechoslovakia suffered cruelly under Nazi occupation, but Czech patriots were not deterred from widespread sabotage and slowdowns which hindered the Germans. Meanwhile, Dr. Beneš had organized a government-in-exile in London in 1940, with Jan Šrámek as Premier and himself as President. Soon after the government returned to Czechoslovakia in April, 1945, Ruthenia, the easternmost province, was ceded to Russia.

A 300-member Constituent Assembly elected on May 26, 1946, had 114 Communist members, and on July 3, 1946, Communist Klement Gottwald formed a six-party coalition cabinet. Amid increasing pressure from Moscow, Gottwald's cabinet remained in office until the bloodless coup d'état of Feb. 23-25, 1948, when the Communists seized complete control of the republic. As they took over, Foreign Minister Jan Masaryk, son of the founder of Czechoslovakia, committed suicide. President Beneš stayed on until June 7, when he resigned following parliamentary elections in which the Communists and their allies were unopposed. Parliament elected Gottwald to the presidency, and Communist Antonin Zapotocky succeeded to the premiership. Beneš died Sept. 3, 1948. Again the Czechs had lost their hard-won liberties, and the government began a systematic suppression of democracy.

GOVERNMENT AND DEFENSE. Czechoslovakia's Soviet-type constitution, promulgated on June 8, 1948, makes the 300-member unicameral Parliament the supreme organ of the state with control over courts and civil service. The government is headed by the president, elected by Parliament for a seven-year term, and the prime minister and his cabinet who are appointed by the president but are responsible to Parliament. The constitution contains nominal guarantees of civil liberties and provides that the state shall conduct all economic activity in the public interest on the basis of a single economic plan. Provision is made for limited Slovak autonomy under an elected council of 100 members.

The army, based on a cadre of Czech units which fought with the Red Army during World War II, has been trained and equipped by the Soviet Union with organization and armament on its pattern. Estimated strength is 160,000, including police.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy is low in Bohemia, higher in Slovakia. In 1948 there were 12,019 elementary schools with 1,059,010 students; 2,280 higher grade schools with 463,295; 292 secondary schools with 70,440; and 1,243 vocational schools with 91,160. The 7 universities had a total enrollment of 31,769.

One of the country's greatest problems is the ethnic variety of its population. In view of the traitorous role played by German and Hungarian minorities in the disintegration of Czechoslovakia in 1938-39, the government decided to expel them from the country. Many Hungarians, however, were permitted to remain.

Decrees of the government issued on Oct. 24, 1945, ordered the nationalization of almost all industrial corporations with more than 500 employees. All national resources, public utilities, transport, commercial banks and insurance companies became state property. Other laws enacted April 28, 1948, nationalized all enterprises employing more than 50 as well as concerns of any size operating in key industries.

Distribution of large estates had already been accomplished following World War I by the 1919 Land Reform Law, which made it illegal for one person to own more than 370 acres of arable land. The social insurance system covers accident, sickness, disability, old age and death.

Approximately 41 per cent of the total area is arable, 31 per cent forest, and 15 per cent meadows and pastures. Sugar beets (1949: 4,466,000 metric tons), wheat (1950: 1,590,000 tons), corn and high-grade barley and hops for beer brewing are cultivated in the low-lying areas. In more elevated regions, the cultivation of potatoes (1950: 7,484,000 tons), rye (1,250,000 tons) and oats predominates. Higher lands are also used for growing fodder crops or for grazing. In 1951 there were 4,100,000 cattle and 3,700,000 hogs and, in 1950, 480,000 sheep and 640,000 horses.

The highly developed position of Czech industry is important in foreign trade, since production far exceeds domestic needs. Agricultural products, led by sugar, provide raw materials for important industries. The beer industry has attained world-wide repute, and there are also spirits, malt and foodstuffs industries. Abundance of coal and presence of iron ore give the country a big metallurgical industry. Steel production was unofficially estimated at 3,312,000 metric tons in 1951. The Skoda steel works at Pilsen are one of the largest in Europe.

Other industries are glass, porcelain and pottery making, while large forest areas provide raw material for the timber, paper and cellulose industries. Also highly developed are the textile industries, including cotton, wool, flax and jute production, and the shoe industry. The famous Bat'a shoe factories are at Zlin. Industrial employment, exclusive of building, totaled 1,395,000 in June, 1949.

Foreign trade is now a state monopoly managed by government corporations. Statistics, in billions of koruny, are as follows:

	1947	1948	1949
Exports	28.55	37.65	40.31
Imports	28.92	37.72	39.40

Leading exports in 1948 were iron and steel manufactures, 16.6 per cent; machinery (except electrical), 9.8 per cent; cotton textiles, 7.7 per cent; glass, 6.1 per cent; and vehicles, 6.0 per cent. Chief imports were cotton, 8.1 per cent; maize, 5.3 per cent; and chemical products, 4.2 per cent. Leading customers were the U.S.S.R., 16.0 per cent; Poland, 7.0 per cent; Yugoslavia, 6.9 per cent; and the Netherlands, 6.4 per cent. The chief suppliers were the U.S.S.R., 15.6 per cent; Britain, 10.1 per cent; and Yugoslavia, 6.3 per cent. Reorientation of trade from west to east was virtually complete.

The disadvantages of Czechoslovakia's landlocked position are offset somewhat by a well-developed system of internal communications. Czech railroads, totaling 8,200 miles in 1948, form a direct connection between the systems of eastern and western Europe, making the country an important communications center. Highway mileage totaled 39,560.

Navigable streams total 1,156 miles in Bohemia-Moravia, and 111 miles in Slovakia. Internal waterways and rivers connect Czechoslovakia with the Black Sea and the North Sea.

Recent national budget estimates have been as follows (in billions of koruny):

	1950	1951	1952
Revenue	131.9	166.5	324.3
Expenditure	131.6	166.2	323.5

National debt (Dec. 31, 1948): internal, 100,531,739,000 koruny; external, 20,318,953,000 koruny.

Most important of Czechoslovakia's varied minerals are pit coal and lignite, with the principal coal fields in the Ostrava-Karvinná area, connected with the Polish fields of Upper Silesia. Production in 1950 was 18,500,000 metric tons of hard coal and 27,500,000 tons of lignite.

Production of iron ore in 1950 was 1,600,000 tons, but much ore is imported to meet the demands of Czechoslovakia's flourishing iron and steel industry. Excellent por-

celain raw materials, particularly kaolin (1947: 607,553 tons), are obtained in western Bohemia and southern Moravia. Other minerals are antimony, gold, magnesite, oil, uranium, silver and zinc.

Czechoslovakia is one-third wooded and is one of the richest forest lands in Europe, with a high production of lumber.

TOPOGRAPHY AND CLIMATE. A long and narrow country, with a length of 594 miles from east to west and a width varying from 45 to 175 miles, Czechoslovakia lies athwart the great central European watershed between the Baltic, Black and North Seas. Mountains form several of its boundaries—the Carpathians by Poland on the northeast, the Böhmer Wald by Austria on the southwest, and the Erzgebirge and the Sudetens by Germany on the northwest and north. Many of the valleys are made fertile by the Danube, Elbe and Vltava (Moldau) rivers and their tributaries. The Elbe and Danube are usually icebound for six to eight weeks each year.

At Prague, in Bohemia, the average annual temperature is 48.2° (29.6° in January; 66.2° in July) and the average annual rainfall is 19.6 inches. The corresponding figures for Presov, in eastern Slovakia, are 46.8° and 25.6 inches. Heavy winter snowfall is common in the highlands.

Denmark (Kingdom)

(Kongeriget Danmark)

Area: 16,575 square miles.

Population (est. Jan. 1, 1952): 4,313,400 (almost entirely Danish).

Density per square mile: 260.2.

Sovereign: King Frederick IX.

Prime Minister: Erik Eriksen.

Principal cities (est. 1952): Copenhagen, 764,100 (capital); Aarhus, 116,800 (ship-building); Odense, 102,400 (meat, dairy products); Aalborg, 80,200 (seaport).

Monetary unit: Krone.

Language: Danish.

Religion: Evangelical Lutheran (state).

HISTORY. Denmark—comprising a peninsula and 500 islands in the Baltic Sea—is a vast produce farm, less than half the size of Indiana.

A tiny nation today, Denmark once was powerful and feared. After conversion of the Danes to Christianity in the 9th and 10th centuries, Canute the Great, King of Denmark, conquered England in 1015. In the 12th and 13th centuries, under Kings Valdemar I and II, Denmark reached the zenith of its power. By the terms of the Union of Kalmar in 1397, the nation was united with Norway and Sweden. Sweden left the Union in 1520, but Denmark and Norway remained united until 1814. In the Napoleonic Wars Denmark picked the wrong side; when Napoleon was defeated, Norway was given to Sweden and Helgoland to Britain in 1814. Denmark lost

again in 1864 when, after a war with Austria and Prussia, it lost Holstein, Schleswig and Lauenburg to Prussia.

The country, which had become a liberal constitutional monarchy in 1849, stayed neutral in World War I, after which a plebiscite returned to it a part of North Schleswig. In 1917 Denmark sold the Virgin Islands to the United States for \$25,000,000.

The Social Democrats, moderately socialistic, dominated Danish politics in 1924-26 and 1929-40 during an era marked by active participation in the League of Nations and close harmony with Norway and Sweden.

On May 31, 1939, eager for peace, Denmark signed a ten-year non-aggression pact with Germany. Less than a year later, on April 9, 1940, Germany invaded neutral Denmark. The British countered by occupying the Faeroe Islands and Iceland. Iceland declared its complete independence from Denmark in 1944, thus breaking a union which had existed since 1280.

To save the country from destruction, King Christian X accepted the German occupation without armed resistance, and the Danish policy became one of passive resistance against Hitler's attempts to form a "model protectorate." During 1944-45, the Danish underground became increasingly active and effective.

Following the German surrender in 1945, the Danes quickly took over their government again with Social Democrat Vilhelm Buhl as prime minister. Buhl resigned when his party lost ground in the national elections of Oct. 30, 1945, and the King designated Liberal leader Knud Kristensen to form a new all-Liberal cabinet in Nov., 1945. Kristensen lost the confidence of the Folketing in Oct., 1947, as a result of his advocacy of a plebiscite in South Schleswig (Germany) looking toward annexation of at least part of the region to Denmark. The Social Democrats increased their plurality in the resulting elections, and on November 11, Hans Hedtoft was named prime minister. His party won the largest block of seats in the September, 1950, elections but was forced to yield the next month to a Liberal-Conservative cabinet headed by Erik Eriksen, a Liberal.

RULER. Frederick IX, of the house of Schleswig-Holstein-Sonderburg-Glücksburg, born March 11, 1899, became king April 20, 1947. In 1935 he married Princess Ingrid of Sweden, by whom he has three daughters. Succession is limited to the male line, and the heir presumptive is his brother, Prince Knud, born July 27, 1900. The King's uncle is King Haakon VII of Norway.

GOVERNMENT AND DEFENSE. Under the constitutional act of 1915, amended in 1920, Denmark is a constitutional hereditary

monarchy. Legislative authority rests jointly with the king and the two-house Rigsdag. The 151 member Folketing (lower house) is popularly elected every four years but can be dissolved by the king at will. Members of the Landsting (upper house) are elected for eight years—57 by popular vote and 19 by the outgoing Landsting. The cabinet, presided over by the king, who designates the prime minister, is the highest executive power, handling new bills and important measures.

The lineup in the Folketing (after elections of Sept., 1950) was Social Democrat 59, Agrarian Liberal 32, Conservative 27, Radical Liberal 12, Single Taxer 12, Communist 7, Faeroe representatives 2.

Military service is compulsory. The army, numbering about 12,000, has been re-equipped with British assistance. The navy has 10 large torpedo boats, 3 submarines, 3 frigates, 1 corvette and several smaller craft. Personnel numbers 6,000.

SOCIAL AND ECONOMIC CONDITIONS. Under the Danish system, schooling is compulsory from 7 to 14 and, for the most part, free. The famous popular high schools (*folkehøjskoler*) for adults number 55, all private but assisted by the state. The Royal University of Copenhagen, founded in 1479, has about 6,500 students and that of Aarhus about 1,100. Elementary schools in 1949 had about 495,000 students; middle and secondary schools, about 90,000.

Social legislation is well advanced and provides for medical aid, poor relief, child welfare and workmen's compensation. The National Insurance Act requires everyone from 21 to 60 to belong to an approved sickness benefit society, to which the state also contributes. The co-operative movement is also well organized.

Approximately ninety per cent of the land is productive and about three-quarters is actually farmed. Agrarian reform laws have operated to bring about a large number of small holdings. About two-fifths of the cultivated area is devoted to cereals, led by barley, mixed grain, oats, rye and wheat. Root crops (fodder), potatoes and sugar beets also are important. The principal source of exports and of the nation's wealth is dairy farming and the production of bacon and pork (1951: 395,300 metric tons), butter (168,100 tons), beef and veal (206,600 tons), eggs (122,600 tons), cheese (77,400 tons) and milk (5,233,000 tons). Livestock in 1951 included 3,110,000 cattle, 3,189,000 hogs and 22,856,000 poultry. Total value of farm and dairy production in 1951 was about 5,594,000,000 kr.

Denmark produces primarily for home consumption, though some industrial products, such as Diesel motors, are large exports. In 1947 there were 7,224 larger establishments with 212,040 workers and an output valued at 6,420,000,000 kr. The

largest industries were food-processing and iron and metal. Others were chemical and pharmaceutical, wood and paper, clothing, textiles, machinery, beverages and leather.

Trade statistics, in millions of kroner:

	1949	1950	1951
Exports	3,560	4,592	5,786
Imports	4,212	5,890	6,993

Leading suppliers in 1951 were Great Britain (26%), Germany (14%), the U. S. (11%) and Sweden (8%). Chief customers were Great Britain (33%), Germany (15%) and Sweden and France (each 5%). Leading exports were dairy products, largely butter and eggs (27%), meat and products (22%), machinery (8%) and live meat animals (7%). Leading imports were coal, coke, petroleum and products, textiles and machinery and vehicles.

The Danish merchant marine, one of the largest in the world on a per-capita basis, had 715 larger ships of 1,343,801 gross tons on June 30, 1951. Regular communications with foreign countries are mainly westward by sea. There are Swedish ferry services from Copenhagen to Malmö and from Helsingör (Elsinore) to Helsingborg.

The main land route to the rest of the continent is the railway via Padborg and Schleswig to Hamburg. Railway mileage totals about 3,050, nearly half nationalized. Train-ferry services for inter-island communication are highly organized. Motor transport also is well advanced, with about 35,000 miles of roads.

Recent public-finance data are as follows (in millions of kroner):

	1950-51	1951-52*	1952-53†
Revenue	2,403	2,569	2,511
Expenditure	2,391	2,573	2,504

* Preliminary. † Budget estimate.

The national debt on March 31, 1951, totaled 10,727,100,000 kr., of which 4,970,000,000 represented the state debt proper.

Mineral resources are negligible, although some coal, granite and kaolin are found on the island of Bornholm. Large quantities of coal and coke must be imported. Peat bogs supply an important source of fuel. Forest resources are unimportant.

The fishing industry, centered at Copenhagen but carried on also in the shallow firths and in the deeper waters of the Baltic, North Sea and Skagerrak, is a basic part of the Danish economy. The 1951 catch of about 264,000 metric tons was valued at 175,300,000 kr. Normally about two-thirds of the catch is exported, usually fresh, ice-packed, or live.

TOPOGRAPHY AND CLIMATE. Denmark, only three miles from Sweden at the closest point, consists of the Jutland peninsula and the islands in the Baltic. The largest islands are Zealand, the site of Copenhagen; Fünen; and far to the east, Born-

holm. The narrow waters to the north are called Skagerrak; and to the east, Kattegat.

The terrain of the whole kingdom is low but not flat. Its highest point is about 500 feet, and there are many lakes, ponds and short rivers. Sand dunes line the western Jutland coast almost without a break.

Denmark's climate is like that of eastern England, but with colder winters and warmer summers. The average annual temperature is 45.2° (61° in July; 32° in January). Average rainfall is 24 inches; thunderstorms are frequent in summer.

Outlying Territories

FAEROE ISLANDS—Status: Autonomous part of Denmark.

Area: 540 square miles.

Population (census 1945): 29,138.

Capital: Thorshavn (population 3,611).

Government: Danish-appointed governor and locally-elected assembly.

Principal products: cod, whale oil, cod liver oil, wool, fertilizers, skins and leather.

This group of 21 islands, lying in the North Atlantic about 200 miles northwest of the Shetland Islands, joined Denmark in 1386 and has since been part of the Danish kingdom. The islands were occupied by British troops during World War II, after the German occupation of Denmark. The principal pursuits are fishing and sheep grazing. The predominant Sjalvstyrisflokkur, or Home Rule party, heads a movement seeking autonomy. Those favoring independence won a slight majority in a plebiscite held Sept. 14, 1946, but subsequent elections gave pro-Danes a majority. However, a bill enacted Mar. 30, 1948, established home rule.

GREENLAND—Status: Colony.

Area: 839,782 square miles (almost 85 per cent glacier).

Population (est. 1950): 23,000 (1946: natives, 21,379; Europeans, 450).

Government: Two inspectorates (Godthaab and Godhavn) supervised by the director for Greenland in Copenhagen.

Principal products: cryolite (1947: exports to U. S., 19,500 tons; to Denmark, 20,900 tons), fish, hides and skins, whale and fish oil, marble.

Greenland, the world's largest island, was colonized in 985-86 by Eric the Red. Danish sovereignty, which covered only the west coast, was extended over the whole island in 1917. In 1941 the United States signed an agreement with the Danish minister in Washington, placing it under U. S. protection during World War II but maintaining Danish sovereignty. A definitive agreement for the joint defense of Greenland within the framework of NATO was signed on April 27, 1951.

Greenland is the world's only source of natural cryolite, important in the manufacture of aluminum. Trade (except cryolite) is a Crown monopoly. Large lead

deposits were found on the eastern coast in 1948.

Dominican Republic (República Dominicana)

Area: 19,327 square miles.

Population (est. 1951): 2,167,000 (mestizo and mulatto, 70%; white, 15%; Negro, 15%).

Density per square mile: 112.1.

President: Hector Trujillo y Molina.

Principal cities (census 1950*): Ciudad Trujillo, 181,533 (capital; sugar); Santiago de los Caballeros, 56,192 (tobacco); San Pedro de Macoris, 19,994 (sugar port); Puerto Plata, 14,419 (seaport).

Monetary unit: Dominican peso.

Language: Spanish.

Religion: Roman Catholic.

* Preliminary.

HISTORY AND GOVERNMENT. The Dominican Republic (formerly San Domingo) occupies the eastern two-thirds of the island which Columbus named La Española (now Hispaniola) when he discovered it on his first voyage in 1492. The other third is occupied by the republic of Haiti. The capital, Ciudad Trujillo, founded in 1496, is the oldest white settlement in the Western Hemisphere.

The Dominican Republic was variously under Spanish, French and Haitian domination until it established its independence in 1865 and then plunged into an unstable political history. U. S. Marines occupied it from 1916 to 1924, when a new constitution was adopted. In 1930, Rafael Leónidas Trujillo y Molina, an army general, was elected president. In office most of the time during the succeeding 22 years, he brought about improved irrigation, roads, sanitation and schools. His brother, Hector, was elected unopposed to succeed him in May 1962.

The president is elected every five years by popular vote in which women take part, and he is eligible to be re-elected indefinitely. The 19-member Senate and the 40-member Chamber of Deputies are also elected for five years. Each of the eighteen provinces has an appointed governor. There is a 12,000-man army, a small air force and several coast patrol craft.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and compulsory from 7 to 14. In 1951, there were 2,749 schools with 262,499 students. The University of Santo Domingo had 2,254 enrolled.

Primarily agricultural, the country produces sugar (1950-51: 587,343 short tons), coffee (326,899 bags of 132 lb. each), cacao (34,000 short tons), tobacco, bananas, rice, corn, cassava, beans, sweetpotatoes.

The raising of hogs and cattle has been expanded recently and the government is attempting to diversify crops to lessen the republic's dependence on sugar exports.

Sugar refining, largely U. S. controlled, is the only important manufacture.

Foreign trade (in millions of pesos):

	1949	1950	1951
Exports	73.7	86.9	108.5
Imports	46.0	43.0	48.1

Leading exports in 1951 were sugar (47%), coffee (16%), cacao (15%) and tobacco (5%). Chief customers were Britain (46%) and the U. S. (44%). The main imports, mostly from the U. S., are cotton goods, iron and steel products, chemicals and machinery.

Transit facilities include about 170 miles of public railway, more than 600 miles of sugar plantation railway, and more than 3,000 miles of highway.

The 1951 budget totaled \$74,606,200. The Republic's foreign debt was retired in July, 1947; the internal debt was \$21,261,000 on June 30, 1951.

Mineral resources are limited and production is negligible. Some gold and gypsum are produced for export. The more readily accessible timberland has been thoroughly exploited, producing mahogany, lignum vitae and pine.

TOPOGRAPHY AND CLIMATE. Crossed from northwest to southeast by a mountain range with maximum elevations exceeding 10,000 feet, the country has fertile, well-watered land on the northeast side, where nearly two-thirds of the population lives. The southwest part is arid and with poor soil except around Ciudad Trujillo. The country has many good harbors.

There is little range in temperature, with mean January average of 74°, and August average of 81°. The elevated interior is cooler than the coastlands. Rainfall occurs mostly from May to November.

Ecuador (Republic)

(República del Ecuador)

Area: 104,510 square miles.

Population (census 1950*): 3,077,000 (60% pure Indian, 25% mestizo, 15% white).

Density per square mile: 29.4.

President: José María Velasco Ibarra.

Principal cities (est. 1947): Guayaquil, 212,025 (chief port); Quito (census 1947) 200,185 (capital); Cuenca, 57,873 (trading center); Riobamba, 30,634 (sugar, cereals).

Monetary unit: Sucre.

Languages: Spanish, Quéchua.

Religion: Roman Catholic.

* Preliminary.

HISTORY. Mostly forested and mountainous and a little larger than Colorado, Ecuador has a long history replete with the forceful rule of dictators. The Spanish under Francisco Pizarro conquered the land in 1532 by defeating the Inca Atahualpa. The first revolt against Spain occurred in 1809, but the victory was not

complete until the Battle of Pichincha on May 24, 1822. Ecuador then joined Venezuela and Colombia in a confederacy founded by Simón Bolívar and known as Colombia, but withdrew amicably and became independent in 1830. The country's subsequent history has been largely one of dictatorships, notably under Juan José Flores, Gabriel García Moreno and Eloy Alfaro. Since 1900, administrations have fallen, usually by force, on the average of every two years. Shortly before the 1944 elections, President Carlos Arroyo del Río was forcibly replaced by José Velasco Ibarra, recalled from exile in Argentina. Velasco Ibarra, confirmed in office by the voters later in the same year, followed the old pattern by assuming the role of dictator in 1946 and suppressing opposition.

Velasco was deposed in Aug. 1947, and after three weeks of confusion Carlos Julio Arosemena took over as provisional president until Sept. 1, 1948, when Galo Plaza Lasso, victor in the June 6 elections, took office. Velasco was returned to office in the June 1952 elections.

For more than a hundred years, Ecuador disputed its boundary with Peru, frequently resorting to arms. After hostilities started again in 1941, both nations submitted to mediation, and in 1944 Ecuador lost most of the disputed area. The dispute broke out anew in 1951.

GOVERNMENT AND DEFENSE. Under the 1946 (16th) constitution, Ecuador elects a president for four years by direct vote, and he is ineligible for further service until at least one term intervenes. The congress is bicameral, with a Senate and Chamber of Deputies. There are 47 provinces and one territory, the Galápagos Islands (3,029 sq. mi.), 650 miles off the coast.

Military service is compulsory at eighteen. The army numbers 10,000 and 40,000 reserves. A 1,030-ton training ship and several smaller craft make up the navy. There is an aviation school at Guayaquil and also a naval school at Salinas. To strengthen defenses of the Panama Canal, the U. S. built a base on Galápagos during World War II; it reverted to Ecuador in 1946.

SOCIAL AND ECONOMIC CONDITIONS. Education is free, compulsory and under state control, but illiteracy is very high—an estimated 60 per cent in 1948. School enrollment in 1949-50 was put at 320,931 in 3,291 public and private primary schools and at 27,396 in 156 secondary schools. There are universities at Quito (2), Guayaquil and Cuenca, and a law school at Loja.

Although agriculture is the basis of Ecuador's economy, less than 12,000,000 acres are devoted to it. Cacao, the chief crop (1951: 31,000 short tons) is grown in the

coastal regions and lower river valleys, along with rice, sugar cane, coffee, bananas, tobacco and cotton. The plateaus and mountain valleys are used for grazing and dairying, and raising cereals and potatoes. After textiles, Ecuador's main industry is manufacture of the Panama hat, made of Toquilla straw.

Foreign trade (in millions of sucres):

	1949	1950	1951*
Exports	439	855	778
Imports	623	571†	825†

* Provisional. † Port of Guayaquil only.

In 1951 the U. S. took 59% of the exports and supplied 65% of the imports. Chief exports were cacao (34%), coffee (30%) and bananas (21%).

Railway mileage in operation in 1949 was 698, all nationalized. The principal road connects the chief port, Guayaquil, with Quito. Highway mileage in 1947 was 2,712.

The 1952 ordinary budget was estimated at 465,000,000 sucres. The foreign debt on Nov. 30, 1951, was \$41,668,000; the internal debt, 137,823,000 sucres.

Ecuador mined 87,150 troy oz. of gold and 273,200 oz. of silver in 1950. Copper and lead also are mined. In 1950, 2,632,190 barrels of petroleum were produced. The country is the world's chief source of light, strong balsa wood, and exported 2,120 metric tons in 1949; but exports have declined steadily since 1943. Exports of rubber—1,968 metric tons in 1945—were only about 800 tons in 1949. Dye wood, cinchona bark, kapok and vegetable ivory are other products of the vast forest.

TOPOGRAPHY AND CLIMATE. Two high and parallel ranges of the Andes, traversing Ecuador from north to south, are topped by tall volcanic peaks including Chimborazo (20,577 feet) and Cotopaxi (19,344). The region between the mountains and the coast is rich but extremely hot and swampy; beyond the mountains to the east is the rainy, forested and tropical Amazon plain, largely uninhabited.

Though Ecuador, as its name implies, lies on the equator, its climate ranges from tropical and temperate to the Arctic conditions of its snow-capped peaks. Temperatures on the coast average 83°; on the Andean plateau, about 46° to 70°. The rainy season extends from December through April or May.

Egypt (Kingdom)

(Misr)

Area: approximately 383,000 sq. mi.

Population (est. 1951): 20,729,000 (1944: Egyptian, 95.4%; Arabian, 1.7%; Greek, .6%; others, 2.3%).

Density per square mile: 54.1.

Sovereign: King Ahmed Fuad II (under regency).

Premier: Mohammed Naguib.

Principal cities (census 1947): Cairo, 2,100,506 (capital); Alexandria, 925,081 (chief port); Port Said, 178,432 (Suez Canal terminus); Tanta, 139,965 (railroad center, Nile delta); Mansura, 102,709 (cotton).

Monetary unit: Egyptian pound (£E).

Language: Arabic.

Religions: Mohammedan, 91%; Christian (mostly Copt and Greek Orthodox), 7%; others, 2%.

HISTORY. Egypt, half again the size of Texas, and the largest and most influential of the Arab states, has been an object of big-power controversy for centuries.

Egyptian history dates back to about 4000 B.C., when the kingdoms of upper and lower Egypt, already highly civilized, were united. Egypt's "Golden Age" coincided with the 18th and 19th dynasties (16th to 13th centuries B.C.), during which the empire was established. Persia conquered Egypt in 525 B.C.; Alexander the Great subdued it in 332 B.C., and then the dynasty of the Ptolemies ruled the land until 30 B.C., when Cleopatra, last of the line, committed suicide and Egypt became a Roman province. From 641 to 1517 the Arab caliphs ruled Egypt, and then the Turks took it and made it part of their Ottoman Empire. Napoleon's armies occupied the country from 1798 to 1801. In 1805, Mohammed Ali, leader of a band of Albanian soldiers, became Pasha of Egypt, founding the present line of rulers. After completion of the Suez Canal in 1869, the French and British took increasing interest in Egypt.

British troops occupied Egypt in 1882, and British resident agents became its actual administrators, though it remained under nominal Turkish sovereignty. On Dec. 18, 1914, this fiction was ended and Egypt became a British protectorate.

Pressure by Egyptian nationalists forced Britain to declare Egypt an independent, sovereign state on Feb. 28, 1922, although the British reserved rights for the protection of the Suez Canal and the defense of Egypt. On Aug. 26, 1936, by an Anglo-Egyptian treaty of alliance, all British troops and officials were to be withdrawn, except from the Suez Canal zone. When World War II started, Egypt remained neutral. But it early became a strategic base for Allied forces, both because of its key location for countering German offenses in North Africa and because of the vital importance of the Suez Canal. British imperial troops finally ended the Nazi threat to Suez in 1942 in the decisive battle of El Alamein, west of Alexandria.

British troops were evacuated from Cairo and Alexandria in 1946, but Anglo-Egyptian negotiations for revision of the 1936 treaty broke down after British refusal to recognize Egyptian sovereignty over the Anglo-Egyptian Sudan. Egypt brought the

problem before the U. N. Security Council on Aug. 5, 1947, but the Council advised resumption of direct negotiations.

In March, 1942, the Wafd (Nationalist) party won the elections and controlled the government until its cabinet was dismissed by the king in October, 1944. Ahmed Maher Pasha, leader of the Saadist party (an offshoot of the Wafdists), formed a coalition cabinet of all parties except the Wafd. He was assassinated on Feb. 24, 1945, while reading a declaration of war against the Axis. Mahmoud Fahmy el-Nokrashy Pasha. A series of coalition cabinets held office until Jan. 1950, when general elections resulted in an overwhelming victory for the Wafd party. Mustapha Nahas Pasha took office Jan. 12, 1950, heading an all-Wafd government.

In Oct. 1951, Egypt abrogated the 1936 treaty and the 1899 agreement on the Sudan. Rioting and attacks on British troops in the Suez canal zone followed, reaching a climax in Jan. 1952. Nahas Pasha was dismissed Jan. 27, 1952.

The army, led by Gen. Mohammed Naguib, took over the government on July 23, 1952. Aly Maher was named Premier. On July 26, King Farouk abdicated in favor of his infant son. Naguib took over the premiership himself on Sept. 7, 1952, and promised far-reaching reforms.

RULER. King Ahmed Fuad, who was born Jan. 16, 1952, son of Farouk I and Queen Narriman, succeeded to the throne July 26, 1952, on the abdication of his father. Pending attainment of his majority, his powers are exercised by a regency council.

GOVERNMENT AND DEFENSE. Egypt is a constitutional hereditary monarchy. The bicameral Parliament has a Senate of 177 members, two-fifths of whom are appointed by the king and the rest popularly elected for 10 years (half renewable every five years); and a Chamber of Deputies of 319 members popularly elected by universal male suffrage for five years unless sooner dissolved by the king. The king acts through a cabinet appointed by him but responsible to Parliament.

Elections for the Chamber of Deputies held Jan. 3, 1950, gave the Wafdists 228, Saadists 28, Liberals 26, National party 6, Socialists 1 and Independents 30.

Under the Anglo-Egyptian Treaty of 1936 the peacetime strength of British troops in the Suez Canal zone was set at 10,000, with 400 air force personnel, but no limit was set in time of war or international emergency. Military service for Egyptians is compulsory. The Egyptian army, strengthened and modernized during World War II, has about 160,000 men, including police units under military control. The air force has about 150 combat planes, and the navy has several small vessels.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory between the ages of 7 and 12. In 1947-48 there were 5,700 elementary schools with attendance of about 2,000,000, and 1,450 other schools with 170,000 students. The University Mosque of el-Azhar in Cairo (founded A.D. 972) is the chief theological seminary of the Moslem world. The University of Fuad I in Cairo (founded 1908) and the University of Farouk I in Alexandria (founded 1943) had 22,000 students in 1948-49, and three other universities had 12,540 students.

The majority of the people are Sunni Moslems. The Christians are mainly Copts with an admixture of Armenian, Syrian and Maronite sects. The population divides generally into fellahin (peasantry) and townspeople of the same blood, the Bedouin or nomad Arabs of the desert, and the Berbers, who occupy the Nile valley between Aswan and Dongola. The foreigners are chiefly Greeks (whose main center is Alexandria), French, British and Italians.

Egypt has one of the highest birth rates in the world (often more than 40 per 1,000 population) and one of the highest death rates. The density of the population in the small inhabited area in the Nile valley and delta (about 13,600 sq. mi.) is far greater than that of Belgium or Bengal.

Agriculture is the chief industry, engaging more than half the population. Only about 3.5 per cent (8,620,850 acres) of the total area is arable, and only about 6,040,000 acres are actually under cultivation, almost entirely in the Nile valley and delta. More than half the cultivated area comprises farms of less than 20 acres. Irrigation is indispensable to agriculture; the Aswan reservoir above the first cataract of the Nile holds up to 5,500,000,000 cubic meters of water and that of Gebel Aulia, in the Anglo-Egyptian Sudan, 2,000,000,000 cubic meters. In the delta and in middle Egypt, where perennial or canal irrigation is possible, two or three crops a year can be grown. The chief cash crop is cotton, of which Egypt is a leading producer.

Production statistics for 1951 were as follows: wheat, 1,194,000 metric tons; maize, 1,446,000 tons; rice (paddy), 620,000 tons; (1950-51) cotton, 377,000 tons; sugar, 180,000 tons.

Other crops include beans, garden crops, dates and grapes. The pastoral industry is relatively unimportant except to the Bedouins in the eastern desert. In 1947 there were 1,317,639 cattle, 1,238,756 buffalo (used to turn water wheels for irrigation), 1,868,261 sheep, 1,473,840 goats, 196,084 camels and 1,124,961 donkeys.

Industry includes sugar refining, cotton ginning, cement manufacture, milling and pottery, soap and perfume making. The

French-controlled Sugar Company of Egypt holds a monopoly on sugar refining.

Foreign trade statistics (in millions of Egyptian pounds):

	1949	1950	1951
Exports	137.9	175.4	203.1
Imports	166.5	196.6	232.1

In 1951, Egypt's chief customers were Britain (19%), India (15%), France (10%) and the U. S. (10%). Leading suppliers were Britain (18%), the U. S. (15%) and France (9%). Raw cotton (81%) and rice (7%) were the chief exports. Imports included wheat, petroleum, fertilizers, iron and steel products, textiles and machinery and vehicles.

Navigable throughout its course in Egypt, the Nile is used largely as a means of cheap transport for heavy goods. The principal port is Alexandria. Railway mileage in 1949 totaled 5,235. Branch lines link Cairo and Alexandria with Suez and nearly every town in the delta. Highway mileage was 8,870 in 1948. Cairo is a major airport. The merchant marine had 54 ships (100 tons and over), aggregating 91,883 gross tons, on June 30, 1951.

Preliminary budget estimates for the fiscal year 1951-52 placed expenditure at £E231,000,000 and revenue at £E212,000,000. The public debt was £E148,000,000 on Dec. 31, 1949.

The most important minerals are manganese ore (1950: 152,200 metric tons), phosphate (1950: 397,200 tons) and petroleum (1951: 16,273,000 barrels). Gold, iron ochres, nickel, sodium carbonate, sulfate tale and tungsten also are mined.

Egypt has no forests. Total value of fishery products is about £E2,000,000 annually, representing a catch of 50,000 metric tons. The chief fishing ground is Lake Menzala in the delta, but fish are also caught along the coast of the delta and in the Nile.

TOPOGRAPHY AND CLIMATE. Egypt, at the northeast corner of Africa, is a very rough square, with the historic Nile flowing northward through its eastern third. On either side of the Nile valley are desert plateaus, spotted with oases. In the north, toward the Mediterranean, plateaus are low, while south of Cairo they rise to a maximum of 1,015 feet above sea level. At the head of the Red Sea, at the northeast corner of Egypt, is the triangular Sinai peninsula, between the Suez Canal and Palestine.

The Nile delta starts 100 miles south of the Mediterranean and fans out to a sea front of 155 miles between Alexandria and Port Said. From Cairo north, the Nile branches into many streams, the principal of which are the Damietta and the Rosetta, joined by a network of canals.

Except for a narrow belt on the Mediterranean, Egypt lies in an almost rainless

area, in which high daytime temperatures fall quickly at night. The mean temperature at Cairo varies between 53° in January and 84° in July; at Alexandria, between 57° in January and 81° in July. South of Cairo, pure desert conditions prevail; at Aswan the mean maximum temperature is 118°.

SUEZ CANAL. The Suez Canal, in Egyptian territory between the Arabian Desert and the Sinai peninsula, is an artificial waterway about 100 miles long between Port Said on the Mediterranean and Suez on the Red Sea. Construction work, directed by the French engineer Ferdinand de Lesseps, was begun April 25, 1859, and the canal was opened Nov. 17, 1869. The cost was 432,807,882 francs. The concession is held by a French company, *Compagnie Universelle du Canal Maritime de Suez*, in which the British government holds 295,026 out of a total of 652,932 shares. The concession expires Nov. 17, 1968, when it will revert to the Egyptian government. An agreement signed March 7, 1949, provided for greater Egyptian participation in management and profits. On the board of management of the canal are 1 Dutch, 1 American, 4 Egyptian, 16 French and 10 British directors.

SUEZ CANAL STATISTICS

Year	Ships	Net Tonnage	Receipts
1947	5,972	36,576,581	£13,147,200
1948	8,686	55,081,056	£E18,382,900
1949	10,420	68,861,548	£E22,869,700
1950	11,751	81,795,523	£E26,700,500
1951	11,694	80,356,338	£E26,160,000

In 1951, 33.5% of the tonnage was British, 14.1% Norwegian, 9.8% U. S., 8.2% French and 7.9% Panamanian.

ANGLO-EGYPTIAN SUDAN — Status: Anglo-Egyptian condominium.

Area: 967,500 square miles.

Population (1950): 8,350,000.

Capital: Khartoum (pop. 1948: 71,400).

Governor General: Sir Robert Howe.

Foreign trade (1951): exports, £E63,899,000; imports, £E41,991,000. Chief exports: raw cotton (74%), cottonseed (6%).

Agricultural products: cotton (ginned) (1950-51: 90,024 metric tons), cottonseed, millet, sesame, wheat, peanuts.

Minerals: gold, salt.

Forest product: gum arabic (exports 1949: 33,916 metric tons).

About one-fourth the size of Europe, Anglo-Egyptian Sudan extends from north to south about 1,200 miles and west to east about 1,000 miles. Before the revolt against Egyptian rule by the Arabized tribes under Mohammed Ahmed (the Mahdi) in 1882-84, the region was known as Egyptian Sudan. Since its reconquest by the Anglo-Egyptian expeditions of 1896-98, it has been known by its present name. A governor general, appointed by the king of Egypt on British recommenda-

tion, is assisted by an executive council of 12 to 18 members.

During the 1946 treaty negotiations, Egypt demanded union of the area with the Egyptian crown, but important Sudanese groups favored complete independence. The aim of the British administration in Sudan was described as the establishment of self-government as a first step toward eventual independence. On June 19, 1948, the governor general published an ordinance which provided for an assembly of 75 members, 65 elected, with limited legislative powers in domestic affairs. Assembly elections held Nov. 16, 1948, were won by the native group favoring independence.

The northern region is a continuation of the Libyan Desert. The southern region is fertile, abundantly watered and, in places, heavily forested. It is traversed from north to south by the Nile, all of whose great tributaries are partly or entirely within its borders. The highest elevation is a mountain range parallel to the Red Sea, with heights of 4,000 to over 7,000 feet. Sudan is the chief source of gum arabic; the southern forests also are rich in fibers and tannins.

There are two trunk railways, one connecting Sudan with Egypt and the other affording access to the chief port, Port Sudan, on the Red Sea.

The whole country lies within the tropics and has an exceedingly hot climate—greatest in the central area and least in the desert zone, where the temperature range is large. At Khartoum the mean annual temperature is 80°, with January the coldest and June the hottest month.

Estonia

Area: 18,357 square miles.

Population (est. 1940): 1,126,415 (Estonians, 88%; Russians, 9%; Germans [Balts], 1%; others, 2%).

Density per square mile: 61.4.

Principal cities (est. 1938): Tallinn, 146,400 (capital); Tartu, 60,100 (university town); Narva, 24,200 (seaport).

Language: Estonian (Finno-Ugrian).

Religions: Lutheran, 78%; Greek Orthodox, 19%; others, 3%.

Born out of World War I, this small Baltic state enjoyed two short decades of independence before it was absorbed again by its powerful neighbor, Russia. In the thirteenth century, the Estonians had been conquered by the Teutonic Knights of Germany, who reduced them to serfdom. In 1521, the Swedes took over, and the power of the German (Balt) landowning class was curbed somewhat. But after 1721, when Russia succeeded Sweden as the ruling power, the Estonians were subjected to a double bondage—the Balts and the tsarist officials. The oppression lasted until

the closing months of World War I, when Estonia finally achieved independence.

Shortly after the start of World War II, the nation was occupied by Russian troops and was incorporated as the 16th republic of the U.S.S.R. In 1940, Germany occupied the nation from 1941 to 1944, when it was retaken by the Russians. Most of the nations of the world, including the U. S. and Great Britain, have not recognized the Soviet incorporation of Estonia.

Ethiopia (Kingdom)

(Abyssinia)

Area: 350,000 square miles.

Population (est. 1950): 10,000,000 (Abyssinian [Amhara], 20%; Galla, 50%; others, 30%).

Density per square mile: 28.6.

Ruler: Emperor Haile Selassie I.

Prime Minister: Bitwoded Makonnen Endalkatchau.

Principal cities (est. 1948): Addis Ababa, 250,000 (capital); Harar, 45,000 (coffee); Dessie, 35,000 (grain center); Dire Dawa, 30,000 (railway workshops).

Monetary unit: Ethiopian paper dollar.

Languages: Amharic, Arabic.

Religions: Copt (Christian), Mohammedan.

HISTORY. Ethiopia, a land-locked African kingdom more than twice the size of California, was one of the first victims of the Axis aggression that culminated in World War II. Italy, after creating fake border incidents, invaded the country on Oct. 3, 1935, and Addis Ababa fell on May 5, 1936. Haile Selassie, the emperor, fled the country, and the Italians welded Ethiopia, Italian Somaliland and Eritrea into the colony of Italian East Africa.

World War II brought early liberation; Ethiopia, in fact, was the first of the Axis-occupied nations to be retaken by the Allies. British and Ethiopian troops reconquered the country in 1941, with the final Italian surrender occurring on Nov. 27. During a transition period thereafter, the nation was under dual Anglo-Ethiopian control. Under an agreement signed on Jan. 31, 1942, British troops quit the country except for stipulated border areas. The latter were evacuated in Aug., 1948.

After the war, the country launched a modernization program in agriculture, industry and education. Irredentist claims to the ex-Italian colonies and former Ethiopian provinces, Eritrea and Somaliland, began to be voiced in 1946. In December, 1950, the U. N. General Assembly voted to federate Eritrea with Ethiopia under the sovereignty of the Ethiopian crown.

The Ethiopian royal family claims descent from the Queen of Sheba and from Menelek, a son of King Solomon. Christianity was introduced about A.D. 330, and after the Arab conquest of northern Africa

in the 7th century, Ethiopia was more or less cut off from the outside world for a thousand years. When Theodore III proclaimed himself emperor in 1853, the country was a conglomeration of autonomous provinces under hereditary chiefs who were usually at war with one another. Menelek II, who ascended the throne in 1889, brought Ethiopia under single rule, and his forces finished off a five-year Italian attempt at invasion with a great massacre at Aduwa on March 1, 1896. Revenge for this massacre was one of Mussolini's great war cries in the 1935-36 invasion.

GOVERNMENT. Ethiopia's ruler, Haile Selassie I, was born on July 17, 1891, crowned king on Oct. 7, 1928, and emperor on Nov. 2, 1930. His eldest son, the crown prince and heir apparent, is Asfa Wassan, born on July 27, 1916. The emperor directly controls the government, though there now is a Council of Ministers, a Senate and a Chamber of Deputies. All members are appointed by the monarch, however.

In wartime, military service is compulsory. The small Ethiopian standing army is equipped and trained by a British military mission. A small Ethiopian force was dispatched to Korea in 1951.

SOCIAL AND ECONOMIC CONDITIONS. The education system is extremely backward. Foreign missions or the government maintain schools in the principal towns, and several secondary schools have been set up. There were 540 primary schools with 60,000 pupils (1950) and 15 secondary schools with 1,079 (1949). The Coptic Church (Christian), with its numerous priests, exercises powerful influence and owns much Ethiopian land. It became independent of the Coptic Archbishop of Alexandria in 1946. Moslems, numerous in frontier regions, have their religious center at Harar. The towns of Ethiopia are scattered and crudely built.

Ethiopia is generally fertile, predominantly agricultural and pastoral, with many regions yielding two crops a year. The chief crops are maize, wheat, barley, rye, cotton, sugar cane, millet, hemp, vegetables, coffee and teff (the common bread grain). The country's inadequate transport system, however, makes crop growing largely a local industry.

The country grazes several million cattle, and many goats and sheep. Horses and mules are bred extensively as pack animals and mounts. There is little manufacturing except for small native industry, although the Italians built some industrial plants during their five-year occupation.

Recent trade data (for years beginning Sept. 11, in millions of Ethiopian dollars):

	1948-49	1949-50	1950-51
Exports*	77.2	68.3	111.7
Imports	91.0	74.7	95.3

* Excluding specie.

Chief exports in 1950-51 were coffee (50%), hides and skins (18%) and cereals (10%). Major imports were cotton piece goods, machinery, sugar and salt.

The 486-mile track from Addis Ababa to Djibouti in French Somaliland is Ethiopia's only rail outlet and its principal trade route. Motorable roads, non-existent until about 1925, now total 11,000 miles. The long rainy season makes road maintenance difficult, and air traffic has become increasingly important, especially as a means of communication with foreign commercial centers. The National Ethiopian Line serves internal and neighboring areas.

Ethiopia is seeking the help of foreign architects in the modernization of Addis Ababa, which, since the days of Menelek, has been a sprawling town of mud huts and tin roofs.

The 1949-50 budget estimated revenue at Eth.\$63,300,000 and expenditure at Eth.\$63,200,000.

Gold, produced from placer mines worked by natives in the south and west, is Ethiopia's main mineral. Platinum also is mined in fair commercial quantities. Other minerals are rock salt, cinnabar, copper, iron, mercury, mica, potash and sulfur. Oil deposits are believed to exist, and all drilling rights have been sold to the Sinclair Refining Company of the U. S.

Vegetation is dense in the valleys and lowlands, but the plateau is comparatively bare, especially in the north. The forests contain many valuable trees, including the Natal yellow pine.

TOPOGRAPHY AND CLIMATE. Over its main plateau-land, Ethiopia has several high mountains; Dashan, the tallest peak, towers to 15,158 feet northeast of Lake Tana. Most of the many rivers are rapid, not navigable, and flow into the Nile. The Blue Nile, or Abbal, rises in the northwest and flows in a great semicircle east, south and northwest before entering Sudan. Its chief reservoir, Lake Tana, lies in the northwestern part of the plateau.

Ethiopia, lying wholly within the tropics, escapes a torrid climate because of its elevation, although the lowlands are hot. The mean annual range of temperature is between 60° and 80°, although Alpine conditions prevail in the higher mountains. The dry season lasts generally from October to June, the wet season from June to September.

ERITREA—Status: Federated with Ethiopia.

Capital: Asmara (population: 117,000).
Sovereign: Haile Selassie I.
Chief Executive: Ato Tedla Bairu.
Foreign trade (1949): exports, \$2,261,900; imports, \$3,114,300. Chief export: hides and skins.

Agricultural products: coffee, barley, tobacco, sesame, hides, skins.

Minerals: gold, salt, potassium salts.

Sea product: pearls.

The first Italian inroad into Eritrea came in 1870 when the port of Assab and adjacent territory were bought from a native sultan; with British approval, Italian troops occupied Massaua in 1885. By a decree of Jan. 1, 1890, Italian possessions along the Red Sea were united into the colony of Eritrea. In 1936 Eritrea became a part of Italian East Africa. British and Indian troops captured Asmara on Apr. 1, 1941, and Massaua a week later; the area, reduced to its pre-1936 borders, then came under British military administration. The U. N. General Assembly on Dec. 2, 1950, adopted a plan for federation of an autonomous Eritrea with Ethiopia under the sovereignty of the Ethiopian crown, federation becoming effective in 1952.

The principal native elements are the Ethiopians and Tigrés, who have close ethnic, linguistic and religious ties with peoples across the border in Ethiopia. Italians in 1949 numbered 21,432. Irrigation is essential in the low-lying coastal plains, and agriculture is practiced largely on the interior plateau (average elevation: 6,500 ft.) where the climate is suitable for European settlement. The pastoral industry engages most of the natives.

Along the coast, the climate is excessively hot and humid, especially in June, September and October; mean annual temperature at Massaua is 86°; the thermometer often rises to 120° in summer.

Finland (Republic)

(Suomen Tasavalta)

Area: 130,160 square miles.

Population (est. Dec. 31, 1951): 4,068,000 (Finnish, 91%; Swedish, 9%).

Density per square mile: 31.3.

President: Juho K. Paasikivi.

Premier: Urho K. Kekkonen.

Principal cities (census 1950*): Helsinki, 363,834 (capital); Tampere, 103,043 (textiles, paper); Turku (Åbo), 101,239 (seaport; shipbuilding); Lahti, 44,759 (glass, lumber); Pori, 43,137 (timber).

Monetary unit: Markka (FM).

Languages: Finnish, Swedish.

Religions (1937): Evangelical Lutheran, 97%; Greek Orthodox, 1.7%; Roman Catholic, .02%; others, 1.28%.

* Preliminary figures.

HISTORY. The Finns, a people of possibly Mongolian origin, first settled their Montana-sized area about A.D. 100. King Eric IX of Sweden conquered them about 1155 and introduced Christianity. Under Swedish rule, which lasted for 650 years, the Finns retained considerable autonomy and were given their own parliament in the 17th century.

Political pressure growing out of the Napoleonic Wars forced Sweden in 1809 to cede Finland to Russia, which gave the Finns a constitution and set them up as a grand duchy. Out of the chaos and complexities of World War I, the Russian revolution of 1917 and a Finnish civil war in 1918 between "Reds" and "Whites" led by Baron Carl G. von Mannerheim, Finland emerged as a republic in 1919. A year later Russia ceded to Finland the Petsamo area with its ice-free Arctic port.

For the next twenty years Finland was generally orderly and prosperous except for vigorous suppression of Communists and a bloodless rightist uprising in 1932. The national presidents during this period were K. J. Ståhlberg, 1919-25; Lauri Relander, 1925-31; P. E. Svinhufvud, 1931-37; and K. Kallio, 1937-40.

In Nov., 1939, the Russians attacked Finland to enforce territorial demands. The sturdy Finns stood off large-scale Red Army assaults for 105 days, but finally lost and ceded to Russia 10 per cent of the nation's area, including the Karelian isthmus. Under German pressure and somewhat in a spirit of revenge, the Finns joined the Nazis against Russia in 1941—and lost again.

Risto Rytli, a pro-German who succeeded Kallio as president in 1940, was forced to resign on Aug. 1, 1944, and was replaced by Baron Carl G. von Mannerheim (who had led Finnish forces in both wars with the U.S.S.R.) Finland severed relations with Germany on Sept. 2, signed an armistice and concluded a provisional peace treaty with Britain and Russia, Sept. 19. The U. S. had not declared war on Finland.

Pro-Russian Juho K. Paasikivi became premier on Nov. 11, 1944, and when Mannerheim resigned because of illness on March 4, 1946, Paasikivi was elected by the Diet to fill the unexpired presidential term. The premiership went to Mauno Pekkala, leader of the new Socialist Unity Party, advocating cooperation with Communists.

Since then the Finns, burdened by the heavy reparations load, have made good progress in rehabilitating their war-torn areas and industrial plants. Politically they have steered a cautious but realistic course acceptable to the Soviet Union, in whose orbit the country now must turn. Political liberty has been preserved to a surprising extent despite widely differing factions ranging from extreme left to far right.

The Communists and their allies lost ground in the July, 1948, parliamentary election and on July 29, Karl August Fagerholm formed a Social Democrat government in which the leftist bloc was not represented. Paasikivi was re-elected for a full 6-year term in Feb., 1950, and on Mar. 17, Fagerholm was succeeded as premier by Urho Kekkonen at the head of a centrist

minority cabinet. The Communists retrieved part of their losses in the July, 1951, parliamentary elections.

GOVERNMENT. Under the 1919 constitution, the 200 Diet members are popularly elected by a proportional representation system for three-year terms. The president, normally chosen for six years by an electoral college of 300 members nominated by the people, acts through his Cabinet headed by the prime minister. Suffrage is universal. Because of the many political parties, government usually is carried on by a coalition, with frequent cabinet changes.

Party standing in the Diet after the July, 1951, elections was as follows (1948 standing in parentheses): Social Democrats, 53 (54); Agrarian, 52 (56); Communists, 45 (38); Conservatives, 26 (28); others, 24 (19).

The Swedish-populated Åland islands have an autonomous status under a statute passed in Oct. 1951.

PEACE TREATY OF 1947. The final peace treaty became effective Sept. 15, 1947; it confirmed the de facto cession to the U.S.S.R. of the Petsamo area, Viipuri and the Karelian region and also of the Porkkala-Udd area west of Helsinki for use as a Soviet naval base. Finland was to pay reparations of \$300,000,000 in kind (reduced to \$225,000,000 by the U.S.S.R. in 1948) over a period of eight years from Sept. 19, 1944, and was to make two-thirds compensation to United Nations nationals for wartime property loss.

The treaty limited Finnish defense forces to the following strengths: army, 34,400 personnel; navy, 4,500 personnel and a tonnage of 10,000; and air force, 3,000 personnel and 60 aircraft. The possession of bombers, submarines, atomic weapons and motor torpedo boats is prohibited.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy is very low (.9% beyond the age of 15). Education is compulsory from 7 to 15. In 1950 there were 6,108 elementary schools with 481,468 students and 336 secondary schools with 91,677 pupils. There are three regular universities, of which Helsinki has the largest enrollment (8,476 in 1950).

About 60 per cent of the total population is engaged in agriculture, 17 per cent in mining and industry, 3.8 per cent in transport, 4.3 per cent in commerce, 2 per cent in professions and 11 per cent in miscellaneous occupations. Considerable progress has been made in social legislation, including workmen's compensation. The cooperative movement is extensive. By a 1927 law, expropriation of large estates was carried out, with compensation to their owners.

Only about 3 per cent of the land is under cultivation, and about 5 per cent in

grassland. The chief crops (with estimated 1951 production in metric tons) are oats, 743,778; barley, 189,909; rye, 207,356; potatoes, 1,480,634. Grazing lands are extensive. In 1951 there were 1,756,470 cattle, 1,207,000 sheep, 486,000 hogs and 110,080 reindeer.

The leading Finnish manufactures are wood and paper (about one-third the total value), food, luxury items, machinery and textiles. Following the cession of the Karelian isthmus and the city of Viipuri to the U.S.S.R., Finland lost valuable manufacturing areas. Helsinki is the principal industrial center.

Trade statistics, in billions of markkas:

	1949	1950	1951
Exports	77.73	90.08	199.21
Reparations*	12.23	7.85	12.40
Imports	66.26	89.15	155.51

* Included in export totals.

Leading exports in 1951 were wood and wood products (39%), wood pulp (33%) and paper and products (20%). Leading suppliers were Britain (16%) and Denmark, the Netherlands and Poland (each 7%). Chief customers were Britain (27%), the U.S.S.R. (14%) and Germany (7%).

According to *Lloyd's Register*, the merchant marine on June 30, 1951, had 341 ships (100 tons and over) aggregating 551,584 gross tons. The numerous lakes, many joined by canals, are busy transport routes. About 40,000 vessels and 18,000 timber rafts use the canals annually. There were approximately 36,500 miles of roads in 1950. Railway mileage in that year totaled 3,533, almost entirely nationalized.

Recent public finance data are as follows (in billions of markkas):

	1950	1951	1952*
Revenue	135.4	192.3	171.4
Expenditure	129.1	181.2	171.4

* Budget estimate.

The total public debt was estimated at 130,951,000,000 FM on Dec. 31, 1951, as compared with 4,074,200,000 FM in September, 1939.

Finland has no coal or oil, and many of its ore deposits are remote from transportation. Finland's sulfide ore (production in 1951: about 964,285 metric tons) is 4 per cent copper, 26 per cent sulfur and 27 per cent iron, with some zinc, cobalt, gold and silver. Limestone, soapstone and red granite deposits are extensive, and uranium deposits are believed to exist. Wood and peat are the only natural fuels.

More than a third of Finland is covered with high quality timber, the nation's richest natural resource. Timber production in 1951 totaled about 1,055,000 metric tons; cellulose, 1,385,800 tons; mechanical pulp, 206,200 tons; paper, 636,800 tons; and cardboard, 205,000 tons.

Finnns have fished for centuries, not commercially, but for domestic consumption. The 1951 catch was about 40,000 metric tons.

TOPOGRAPHY AND CLIMATE. Finland stretches 700 miles from the Gulf of Finland on the south to Soviet Petsamo, north of the Arctic Circle. Off the southwest coast are the Åland Islands (approximately 300), controlling the entrance to the Gulf of Bothnia. Finland has more than 60,000 lakes. Of the 1939 area, 11 per cent was lake and 48 per cent swampland. Of the few rivers, only the Oulu (Uleå) is navigable to any important extent. Most of the country is tableland 400 to 600 feet above sea level, with a rise to 4,115 feet in the Hailuajokko region of the northwest.

Finland's long severe winters are moderated somewhat along the coast by prevailing southwest winds, but the summer lasts only about two and a half months. Southerly Finnish ports are icebound part of the year. Rainfall is light, with the driest months from May to September.

France (Republic) (République Française)

Area: 212,741 square miles.

Population (est. Dec. 31, 1951): 42,400,000. (1946: French, 94.2%; others, 5.8%).

Density per square mile: 199.3.

President: Vincent Auriol.

Premier: Antoine Pinay.

Principal cities (est. 1948): Paris, 2,800,000 (capital); Marseille, 700,000 (chief port); Lyon, 470,000 (silk, metal manufacture); Toulouse, 285,000 (tobacco; commercial center); Bordeaux, 250,000 (wine; seaport); Nice, 235,000 (resort center); Nantes, 210,000 (manufacturing).

Monetary unit: Franc.

Religion (est.): Roman Catholic, 97.5%; Protestant and others, 2.5%.

HISTORY. France was ancient Gaul when Caesar conquered a part of it in 57-52 B.C.; for several centuries thereafter it was bound to the Roman Empire. In the 5th century A.D., it was overrun by the Franks and other barbarian tribes. Between 768 and 814, Charlemagne created a Frankish empire covering most of Western Europe, but by the time Hugh Capet came to the throne in 987, his kingdom comprised only the region around Paris. For more than 300 years the Capets struggled to unify the many feudal fiefs.

Philip VI, cousin of the last Capet and first of the House of Valois, took the throne in 1328. Soon thereafter began the Hundred Years' War (1338-1453), the struggle over England's bid to seize the French crown. The English won at Crécy in 1346 and at Agincourt in 1415, but were defeated at Orléans in 1429 by the French forces led by Joan of Arc. Cruel persecution of French Protestants, the Hugue-

nots, was followed by civil war and then the Edict of Nantes in 1598, by which the Huguenots received complete religious freedom from Henry IV, first of the Bourbons.

Splendor, wealth and the establishment of a colonial empire marked the long reign of Louis XIV from 1643 to 1715. Extravagance, however, forced Louis XVI to struggle with the problem of taxation at a time when the forces of revolution were coming to a head among France's lower and intellectual classes. The French Revolution, of world significance for its impact on absolute rule, broke out in 1789. Louis XVI was deposed in 1792 and executed the next year. Then came the Reign of Terror as the revolution swung to excess, the Directory from 1795 to 1799, and the Consulate from 1799 to 1804, after which Napoleon was proclaimed emperor. Meanwhile, French armies were engaged on all sides, spreading French hegemony over most of western and central Europe. The final downfall came at Waterloo on June 18, 1815.

The restored Bourbon, Louis XVIII, reigned until 1824 and was succeeded by his reactionary brother, Charles X, who was overthrown in the revolution of 1830. His successor, Louis Philippe, was unseated in 1848, and succeeded by Napoleon's nephew, Louis. Inaugurated president of the Second Republic in 1848, Louis Napoleon became emperor as Napoleon III in 1852 but abdicated after France's defeat in the Franco-Prussian War of 1870-71. The resultant conflict between republicans and monarchists was resolved by the adoption of a republican constitution in 1875, which established the Third Republic to replace the provisional Republic set up in 1871.

Victorious with the Allies in World War I under Premier Georges Clemenceau, France emerged as the dominant power on the continent. From 1919 on, its aim was to keep Germany weak through a system of military alliances and by maintaining a strong French army.

The effort was a dismal failure. At home France was weakened by economic and political instability, with many short-lived cabinets. Germany became a dictatorship, with the full national energy bent toward war. The Third French Republic, permitting political freedom, bickered and argued away its years. The leftist "Popular Front" coalition cabinets of Léon Blum (1936-37) and Camille Chautemps (1937-38) were succeeded by the Radical and Radical-Socialist cabinet under Édouard Daladier, one of the men of Munich.

Paul Reynaud took Daladier's place on March 21, 1940, less than seven months after the start of World War II. In May, 1940, Hitler's armies finally poured into

FRANCE AND THE FRENCH UNION

Country	Area, sq. mi.	Population, estimated
France	212,741	42,400,000 (1951)
Africa		
French Equatorial Africa	969,111	4,346,000 (1949)
Chad	495,752	2,011,000 (1946)
Gabon	103,089	423,000 (")
Middle Congo	132,046	631,000 (")
Ubangi-Shari	238,224	1,065,000 (")
Cameroun	170,230	3,006,000 (1950)
Algeria	851,078	8,900,000 (")
Morocco	153,870	8,410,000 (")
Tunisia	60,209	3,475,000 (")
French West Africa	1,805,287	16,375,000 (1949)
Dahomey	44,749	1,474,000 (")
French Guinea	108,455	2,130,000 (")
French Sudan	461,389	3,137,000 (")
Haute Volta	121,892	3,044,000 (")
Ivory Coast	129,807	2,031,000 (")
Mauritania	364,092	524,000 (")
Niger	493,822	2,041,000 (")
Sénégal	81,081	1,994,000 (")
Togo	21,235	998,000 (1950)
French Somaliland	8,376	60,000 (")
Madagascar and dependencies	229,438	4,430,000 (")
Réunion	970	255,000 (")
America		
St. Pierre and Miquelon	93	4,354 (1945)
French Guiana	34,740	35,000 (1949)
Guadeloupe	686	289,000 (1950)
Martinique	427	273,000 (")
Asia		
French India	197	317,000 (1948)
State of Viêt-Nam	127,259	23,073,000 (1950)
Cambodia	53,668	3,296,000 (")
Laos	91,428	1,214,000 (")
Oceania		
French Pacific Settlements	1,545	60,000 (")
New Caledonia and dependencies	7,654	50,000 (")
New Hebrides	4,633	49,000 (1949)

France and on June 16, the reins of government fell to Marshal Henri Philippe Pétain, who opposed continuation of the war. An armistice with Germany was signed June 22, dividing France into occupied and unoccupied zones. The Third Republic was voted out of existence on July 10 by the National Assembly at Vichy, and Unoccupied France became totalitarian, with Pétain as chief of state.

Meanwhile, in London, General Charles de Gaulle had formed on June 18, 1940, a provisional French National Committee which received British recognition and represented the interests of free Frenchmen. De Gaulle's government-in-exile was moved to Algiers in June, 1943, as the French Committee for National Liberation.

After the liberation of Paris, De Gaulle formed a provisional government in the capital on Sept. 10, 1944. It remained in

power as a theoretically non-political régime until the elections of Oct. 21, 1945, when a National Assembly was selected to draw up a new constitution and serve as an interim legislative body. De Gaulle was named provisional President on Nov. 13 but resigned soon after and was succeeded by Félix Gouin, a Socialist, on Jan. 23, 1946.

A proposed constitution providing for a strong legislature and weak executive was rejected by the electorate on May 5, 1946. The new National Assembly, elected June 2, named Popular Republican Georges Bidault as interim President. France's new constitution was approved by a narrow margin on Oct. 13, and the Fourth Republic formally took shape early in 1947 with the election of Socialist Vincent Auriol as President, Jan. 16, and the confirmation of Socialist Paul Ramadier as Premier, Jan. 22.

Ramadier was succeeded on Nov. 22, 1947, by Robert Schuman, a Popular Republican. Socialist demands for reducing the armed forces budget forced Schuman's resignation on July 19, 1948; he was succeeded by Radical-Socialist André Marie. Marie resigned late in August and Schuman formed another cabinet, which lasted approximately 64 hours. Henri Queuille, another Radical Socialist, replaced Schuman on Sept. 7. Under his leadership the nation made important progress. In Oct., 1949, he resigned over a wage-price controversy and was succeeded by Georges Bidault, whose resignation in June, 1950, was followed by a cabinet crisis in which a new government formed by Queuille lasted only three days. René Pleven formed a cabinet which was approved by Parliament on July 13, 1950.

On March 9, 1951, Queuille took over again. In indecisive elections held June 17, 1951, Gen. de Gaulle's followers won the largest single block of assembly seats. Pleven's next cabinet, formed on Aug. 11, gave way on Jan. 18, 1952, to Edgar Faure. Independent Antoine Pinay was named Premier March 6.

GOVERNMENT. Under the constitution approved Oct. 13, 1946, France is a secular, democratic and social republic. The dominant power in the new Republic is the National Assembly, whose members (627 in 1952) are elected by universal direct suffrage. There is also a Council of the Republic of 320 members elected by a complicated indirect procedure requiring 8 different elections. This house has only advisory and delaying powers and is definitely subordinate to the Assembly. The two Houses together elect the President of the Republic for a 7-year term, but his choice of a Premier and the latter's choice of cabinet ministers require Assembly ratification. All ministers are collectively responsible to the Assembly for the general policy of the Cabinet and are individually responsible for their personal actions.

The National Assembly elections of June 17, 1951, divided the 627 seats as follows: De Gaullists 118, Socialists 104, Communists 103, moderate right-wing parties 98, Radical Socialists and affiliates 94, Popular Republicans 85, overseas deputies 23 (2 vacancies). The Communists polled 26.5% of the popular vote, De Gaullists 21.7% and Socialists 14.5%.

France's 20th postwar cabinet, formed Mar. 11, 1952, had 6 Radicals, 5 Popular Republicans, 3 Peasants, 2 Democratic Unionists and 6 independents. Communists have been excluded from the government since April 30, 1947.

GOVERNMENT OF OVERSEAS TERRITORIES. The French constitution of 1946 provided for establishment of the French

Union, consisting of the French Republic (metropolitan France and the overseas departments, territories and trustships) and the associated territories and states. The overseas departments are Algeria (three departments), Martinique, Guadeloupe, French Guiana and Réunion.

The overseas departments and territories are represented in the National Assembly by 75 deputies and in the Council of the Republic by 65. In addition the constitution provided for creation of a high council, consisting of nominees of the French government and of the associated states, and an Assembly of the French Union, with power that is mainly advisory. The Assembly, which met for the first time on Dec. 10, 1947, consists of 240 delegates, 120 of whom are elected by the French parliament, 75 by territorial assemblies overseas, and 45 by the associated states.

Article 61 of the constitution provides that the position within the Union of the associated states—tentatively described as French Morocco, Tunisia and the Federation of Indo-China—is "settled for each of them by the act which defines their relations with France." Thus far, both Morocco and Tunisia have declined to modify their protected status in favor of a closer bond with France. Viet-Nam, Laos, and Cambodia, in Indo-China, have become associated states.

DEFENSE. French armed forces in 1951 (including gendarmes) totaled about 717,000 men, recruited under a conscription system providing for 18 months service. The total was to be raised to 953,000 by 1953 under a 3-year rearmament program. The army had about 500,000 men. Forces outside France included 100,000 in North Africa, 150,000 in Indo-China and a small unit in Korea. Air-force strength was about 100,000; that of the navy, about 65,000. On Dec. 31, 1951, the navy had 2 light aircraft carriers, 1 escort carrier, 2 battleships, 6 cruisers, 11 destroyers, 26 frigates, 10 submarines and several hundred smaller craft.

EDUCATION. State elementary schools in 1950 numbered 69,843, with 3,775,775 students. There were also 11,028 private schools with 886,948 students. Secondary education for boys is provided in *lycées*, classical and modern schools maintained by the state (588 in 1949 with 225,000 students), communal colleges and free schools. Girl students enrolled in *lycées* and classical and modern schools numbered 187,000 in 395 institutions in 1949.

Higher education is provided chiefly in the universities, of which there are 17, with total enrollment of 136,744 in 1950. The University of Paris is largest, with an enrollment of more than 50,000.

RELIGION. The predominant faith is Roman Catholicism, but Church and State

were separated in 1905. Diplomatic relations with the Vatican were resumed in 1921, and lesser church property was returned to diocesan associations in 1924.

POPULATION. The people are not homogeneous, varying from section to section. During the inter-bellum period, the population remained almost static, with an increase of only 72,133 from 1931 to 1936 and a decrease of 3.3 per cent from 1936 to 1946. The birth rate also fell sharply (1925: 19.6; 1936-38 annual average: 14.8), but the end of World War II saw an uptrend, with an estimated rate of 19.4 in 1951.

AGRICULTURE. The national economy of France is predominantly agricultural. Of the total area, approximately 40 per cent is ordinarily devoted to crops, 20 per cent to forests, 3 per cent to vines and two per cent to market and other gardening. The vast majority of holdings are small farms worked by the owners. France normally is almost self-sufficient in basic foodstuffs and leads the world in wine production.

Production of major crops, in metric tons, was estimated as follows in 1951: wheat, 7,065,000; rye, 504,000; barley, 1,667,000; oats, 3,602,000; maize, 607,000; sugar beets, 8,876,000.

Other important crops are potatoes, berries, fodder beets, fruits, hay, nuts and turnips. Silk culture once thrived in the lower Rhône valley, but production fell sharply between wars. Milk, butter and cheese are important as exports. Livestock in Oct. 1950, included 15,801,000 cattle, 7,480,000 sheep, 6,760,000 hogs and 1,288,000 goats. Wine production in 1951 was about 1,333,400,000 U. S. gallons.

INDUSTRY. Principal industrial areas are Paris, Artois, Lower Seine and Lyon; the textile industry is concentrated in the north. Leading manufactures are iron, steel, chemicals, textiles, automobiles, machinery and beet sugar. Industrial production in 1951 was estimated at 125 per cent of the 1948 level.

FRENCH INDUSTRIAL PRODUCTION

Monthly averages, 1950 and 1951,
in metric tons

Product	1950	1951
Pig Iron and ferroalloys	647,000	729,000
Steel ingots and castings	721,000	819,000
Cement	618,000	696,000
Cotton yarn	20,900	22,600
Wool yarn	10,600	10,000
Rayon yarn	3,770	4,760
Electricity	2,623*	3,004*
Manufactured gas	202†	203†
Automobiles	21,440	26,160†

* Millions of kw. † Millions of cu. m. ‡ Units.

TRADE. Foreign trade statistics, in billions of francs, including the Saar:

	1949	1950	1951
Exports	784.7	1,077.8	1,478.9
Imports	927.1	1,073.2	1,607.2

Principal suppliers in 1951 were the French Union (21%), the U. S. (11%), Germany (6%) and Belgium and Australia (each 5%). Leading customers were the French Union (37%), Britain (9%), and Belgium, the U. S. and Switzerland (each 6%).

Exports in 1951 totaled 39,889,000 metric tons (1950: 34,303,000 tons); imports amounted to 48,655,000 tons (1950: 39,085,000 tons).

COMMUNICATIONS. The French merchant marine had 1,246 ships (100 tons and over) aggregating 3,366,701 gross tons on June 30, 1951, according to *Lloyd's Register*—fifth largest in the world on that date. Losses during World War II were heavy.

There are about 5,500 miles of navigable waterways, including canals, with a traffic of 35,832,000 metric tons in 1950. There are approximately 550 inland navigation ports, of which Paris, Rouen and Strasbourg each normally handle more than one million tons annually (Paris, more than ten million tons). Railway mileage in 1950 totaled 25,645. Railroads were merged in 1938 into the *Société Nationale des Chemins de Fer Français*, of which the government acquired controlling interest. Highway mileage in 1950 was 445,000, including 50,000 miles of national highways. Telephones totaled 2,405,802 on Jan. 1, 1951. Air France, nationalized on Jan. 1, 1946, operates on a world-wide basis.

FINANCE. France's postwar financial position has been extremely unstable. Recent data are as follows (in billions of francs):

	1950	1951*	1952*
Revenue	1,939	1,875	2,773
Expenditure	2,546	2,728	3,494

* Budget estimate.

On Dec. 31, 1951, the internal debt was 3,104,000,000,000 fr.; the external debt, 1,256,000,000,000 fr.

On Dec. 2, 1945, the Bank of France and four large private banks were nationalized, and commercial credit came under government supervision.

TOPOGRAPHY. With a maximum length of about 600 miles and a width of 550 miles, France is second in size to Russia among Europe's nations. Its coastline is about 1,950 miles. In the Alps near the Italian and Swiss borders is France's highest point—Mont Blanc, 15,781 feet. The forest-covered Vosges Mountains are in the northeast and the Pyrenees are along the Spanish border. Except for extreme northern France, which is part of the Flanders plain, the country may be described as four river basins and a plateau. Three of the streams flow west—the Seine into the Eng-

lish Channel, the Loire into the Atlantic, and the Garonne into the Bay of Biscay. The Rhône flows south into the Mediterranean. For about a hundred miles, the Rhine is France's eastern border. West of the Rhône and northeast of the Garonne lies the Central Plateau, covering about 15 per cent of France's area, and rising to a maximum elevation of 6,188 feet. In the Mediterranean, 115 miles east-southeast of Nice, is Corsica, the island of Napoleon's birth, with an area of 3,367 square miles.

MINERALS. French coalfields, most extensive in the northeast, ordinarily supply about 70 per cent of domestic needs. Lorraine, Anjou and Normandy have valuable iron ore deposits. Provence has bauxite. Alsace has potash and oil. Limousin has kaolin, zinc, lead and tar.

Production in 1951 included coal, 52,970,000 metric tons (excluding Saar); iron ore, 35,210,000 tons; lead (smelter), 48,100 tons; petroleum, 2,800,000 barrels; (1950) potash, 1,017,800 tons.

FORESTS AND FISHERIES. France, with over 26,000,000 wooded acres, produces well over \$100,000,000 worth of forest products in a normal year, including resin, turpentine, timber and nuts. The annual fish catch (432,000 metric tons in 1950) is among the largest in Europe. Cod and sardines are usually the biggest items; others are coalfish, herring, whiting, mack-

erel, tunny, lobster, oysters, rays, flounder and sole.

CLIMATE. France's climate is temperate but varies from long cold winters and hot summers in the northeast, to the subtropical temperature of the Mediterranean coast with very mild winters. With no high western elevations to block moisture-laden winds from the Atlantic, all France has adequate rainfall of 20 to 30 inches a year. The mean annual temperature at Paris is 50.5° (36.5° in January and 63.5° in July). The rainiest months are June and October, with February usually the driest.

Andorra

This 191-square mile autonomous and semi-independent state on the Franco-Spanish border has been under the joint suzerainty of the French State and the Spanish bishops of Urgel since 1278. It is a cluster of mountain valleys inhabited by about 5,200 hardy and traditionally independent people whose principal pursuit is the tending of flocks. Catalan is the language spoken, and both French and Spanish currency are in use. Andorra is governed by a Council General of 24 members, elected for four years by the heads of families. A First Syndic, chosen by the Council, constitutes the supreme executive authority.

French Overseas Territories

AFRICA

Algeria (Part of Metropolitan France)

(L'Algérie)

Governor General: Roger Leonard.

Principal cities (census 1948): Algiers, 315,210 (capital); Oran, 256,661 (seaport); Constantine, 118,774 (trading center); Bône, 102,823 (seaport; phosphates).

Monetary unit: French franc.

Languages: Arabic, French.

Religions: Mohammedan (natives), Roman Catholic, Jewish.

HISTORY. Algeria, more than three times the size of Texas and situated on the northern bulge of Africa, was of great strategic importance during World War II. After U. S. and British troops occupied it following the landings of Nov. 8, 1942, it became the headquarters of the provisional French government of General Charles de Gaulle until the summer of 1944. For many months during that period it was the headquarters of the Allied Expeditionary Force.

Algeria became a Roman colony after the fall of Carthage in 146 B.C. and was overrun by the Arabs in the 7th, 11th and

12th centuries. In the 13th century it became one of the three kingdoms founded on the ruins of the old Almohade Empire. Following a brief Spanish occupation, it went under Turkish suzerainty in 1518. For 300 years thereafter Algiers was the headquarters of the notorious Barbary pirates who preyed on Mediterranean shipping. The French ended Turkish rule by taking Algiers in 1830, but it was not until 1847 that they were able to suppress a holy war instigated in 1839 by Abd-el-Kader.

French policy for a time vacillated between complete assimilation of Algeria as part of France, and a decentralized administration under a governor general. In 1896 the idea of assimilation was abandoned for a number of years. After France fell in 1940, Algerian government officials were loyal to Vichy, but their control was ended by the Allied invasion of the African coast in 1942.

GOVERNMENT. In effect, Algeria is part of France. Its three departments are represented in the National Assembly by 15 deputies, and it is one of the ten military districts of France, with both French and natives subject to military service. The governor general is responsible to the Interior, rather than Colonial, Ministry in the French Cabinet. A statute enacted in Aug., 1947, gave Algeria an elected legisla-

tive assembly, but leadership of the government still remains with the governor general.

SOCIAL AND ECONOMIC CONDITIONS. Primary and secondary schools for Europeans are on French lines. Most natives do not go beyond the primary grades. The knowledge and use of French has spread widely among the natives, but the teaching of Arabic in all schools was made compulsory in 1946. There is a university at Algiers, with faculties of science, arts, law, medicine and pharmacy.

Approximately 86 per cent of the population is native, 12 per cent French and 2 per cent other European. The native population is Berber, with Arab admixture physically assimilated.

The area under cultivation is about 15,000,000 acres, more than 30 per cent of which is owned by European farmers, chiefly in the fertile coastlands. The principal crops are wheat, barley and oats. Algeria is a leading wine producer, with almost 7 per cent of the cultivated area devoted to vines. Production in 1951 was 362,800,000 U. S. gallons, about four-fifths of normal. Olive trees are widespread; the average annual yield of oil is about 2,500,000 gallons. Tobacco, corn, vegetables, flax, silk, figs and dates are also produced. Much of the area is more adapted to grazing than to agriculture. In 1950 there were 4,500,000 sheep, 2,900,000 goats, 766,000 cattle and 120,000 camels.

European industries include those dependent on crops, such as distilling and oil and flour milling, as well as the making of leather, tobacco and matches. There are also small native industries, particularly the traditional carpet weaving.

Exports in 1951 were valued at 121,430,200,000 fr.; imports, at 201,125,500,000 fr. Chief exports were wine (31%), flour (7%) and grain (5%). Chief imports were petroleum and products (5%) and cotton textiles and iron and steel products (each 4%). France took 66% of the exports and supplied 75% of the imports.

Algeria has 3,396 miles of railway. A central line runs from the Moroccan to the Tunisian frontier with branches north to all the ports and south into the Southern Territories. There is an excellent network of roads of more than 30,000 miles, and motor transport is well developed, including regular passenger and freight lines across the Sahara. Only French ships may normally trade between France and Algeria.

Revenue (ordinary and extraordinary) was estimated at 83,439,893,000 fr. in 1951-52; expenditure was estimated at 83,414,461,000 fr.

Algeria is a leading producer of phosphates (1951: 776,575 metric tons). Iron ore of good quality is found near the Tu-

nisian frontier and on the Oran coast (1950: 2,572,000 tons). Zinc, lead and salt are also important minerals; and small amounts of oil and coal are produced.

Forests, mostly scrub, cover about 7,500,000 acres; cork is the leading product. Fish products include anchovies, sardines, shellfish, spray and tuna.

TOPOGRAPHY AND CLIMATE. Algeria fronts on the Mediterranean for more than 700 miles. Northern Algeria extends inland for 185 to more than 200 miles. South of it are the big, economically unimportant Southern Territories. Low plains cover small areas near the coast, but 68 per cent of Algeria is a plateau between 2,625 and 5,250 feet above sea level. The region between the Sahara and the Mediterranean reaches a high point of 7,641 feet.

Most of the streams are periodic with the rains. The Chélif is the principal river, over 435 miles long. On the Saharan slopes, the oases or the hot sands absorb the streams as soon as they leave the mountain ridges.

Rainfall averages 20 to 40 inches on the coast, and decreases to virtually none in the Sahara. On the coast, temperatures average about 52° in winter, 77° in summer. Inland, the winter average is about 40° and summer about 81°, although the Sahara summer average is 95° to 105°.

CAMEROON (FRENCH CAMEROONS)—Status: U. N. trust territory.

Capital: Yaoundé (population 50,000).

High Commissioner: Jean-Louis Soucaux.

Foreign trade (1951): exports, 11,371,900,000 fr. C.F.A.*; imports, 16,496,400,000 fr. C.F.A. Chief exports: cacao (51%), fresh bananas, coffee, palm kernels and oil.

Agricultural products: cacao (exports 1951: 48,805 metric tons), palm kernels and oil, bananas, millet, sweet potatoes.

Minerals: diamonds, gold, tin.

Forest product: timber.

* Colonies Françaises d'Afrique, equal to 2 metropolitan francs.

Cameroun is bounded principally by French Equatorial Africa, except for the Atlantic Ocean on the west, the British Cameroons on the northwest, and Rio Muni on part of its southern boundary.

In 1884 the Cameroons became a German colony (Kamerun), and after the conclusion of World War I the region was divided as a League mandate between Britain and France, four-fifths of the area going to France. The new U. N. trusteeship area has political and financial autonomy under a French High Commissioner, responsible to the French government and to the administrative council of French Equatorial Africa. Cameroun joined the Free French movement in 1940. The chief port and commercial center is Douala; the administrative center, Yaoundé (population 50,000), is located on the central plateau.

The climate is tropical and unhealthful for Europeans; not even in the cool months does the temperature generally fall below 70°. Rainfall is heavy on the coast and is fairly evenly distributed through the year.

FRENCH EQUATORIAL AFRICA—Status: Group of overseas territories.

Governor General: Paul Chauvet.

Capital: Brazzaville (population 83,579).

Foreign trade (1951): exports, 11,766,-200,000 fr. C.F.A.; imports, 18,243,200,000 fr. C.F.A. Chief exports: cotton (45%), timber, gold, diamonds, coffee, palm kernels.

Agricultural products: cotton (1951 exports: 26,961 metric tons), wool, palm kernels and oil, coffee.

Minerals: gold, diamonds, and lead.

Forest products: timber, rubber, copal gum, wax.

This group lies in west central Africa, bordered on the west by the Atlantic, Cameroun, Nigeria and French West Africa; on the north by Libya; on the east by Anglo-Egyptian Sudan; and on the southeast and south by Belgian Congo. The coast, an early slaving center, was first settled by the French in 1839; French hegemony was subsequently extended by exploration and conquest of the native tribes. The territories declared for Free France following the armistice of June, 1940, and Brazzaville became capital of De Gaulle's Free French movement.

The governor general, responsible to the Minister for France Overseas in the French Cabinet, administers the area as an administrative unit with the aid of an administrative council; each of the four territorial regions (Gabon [Gabun], Middle Congo, Ubangi-Shari, Chad) has a governor responsible to him. There were, in 1950, 17,440 Europeans; most of the Africans are Negroes. There are Arab and Fulani settlements in the Chad region, and several Moslem sultanates. Natural resources, both forest and mineral, are vast but relatively unexploited. The country's economic life depends primarily on the forest products. The colony is capable of exporting large quantities of hard okoumé wood, either in logs or in veneer form.

The climate is tropical—hot and humid—and the average temperature is about 80° (78° at Brazzaville), varying only slightly throughout the year. Rainfall averages about 60 inches annually, with no marked wet or dry seasons.

FRENCH MOROCCO: see MOROCCO

FRENCH SOMALILAND—Status: Overseas territory.

Capital: Jibuti (population 22,000).

Governor: Numa Sadoul.

Foreign trade (1951): exports, 1,241,100,-000 Jibuti fr.*; imports, 3,247,100,000 Jibuti fr. Chief exports: coffee, hides, salt.

Mineral: salt.

* 1 Jibuti franc = 1.64 metropolitan francs.

French Somaliland, at the southern entrance to the Red Sea, was acquired by France between 1883 and 1887 by treaties with the Somali sultans, although posts on the coast had been acquired in 1856. This small, largely arid and sparsely populated region is important chiefly because of the port of Jibuti, the main artery of Ethiopia's trade via the Jibuti-Addis Ababa railway. The area is administered by a governor, responsible to the French government and assisted by an administrative council. It adhered to the Free French movement in December, 1942. In 1950 there were 2,000 Europeans (1,260 French).

French West Africa (Group of Overseas Territories) (L'Afrique Occidentale Française)

Governor General: Bernard Cornut-Gentille.

Principal cities (est. 1951): Dakar, 330,-000 (capital, chief port); (est. 1948): St. Louis, 62,900.

Monetary unit: Franc C.F.A. (Colonies Françaises d'Afrique, equal to 2 metropolitan francs).

Languages: French, native tongues.

Religions: Mohammedan, Pagan.

HISTORY AND GOVERNMENT. The St. Louis Colony, founded in 1626 at the mouth of the Sénégal River, was probably the first permanent white settlement in French West Africa in which the French established themselves, largely for the purpose of pursuing the slave trade. Little progress inland was made until after 1854, when a scheme was conceived to link the upper Sénégal with the upper Niger. After 1876 the coast settlements were extended steadily into the interior through a series of missionary and economic campaigns. In 1895 the colony of French West Africa was formed under one governor general by the unification of its various components.

The governor general of the area is appointed by the French government and is assisted by a legislative council and an elected assembly. Governors responsible to him administer the eight constituent colonies—Sénégal, French Guinea, the Ivory Coast, Dahomey, Haute Volta (re-established in 1947), French Sudan, Mauritania and Niger. Each of these has considerable autonomy, with the central government supervising services common to all.

The area is represented in the French National Assembly, the Council of the Republic, and the Assembly of the French Union.

SOCIAL AND ECONOMIC CONDITIONS. Attendance at elementary schools in 1950 was approximately 99,000. There were 66 secondary schools with 6,610 students.

No racial unity exists in French West Africa, and there is great variation of

physique, manner, custom and language. The population is native except for approximately 54,560 Europeans (1948). Non-Negroid tribes include the Saharans, Moors, Tuaregs and Fulbé. About half the population normally is Mohammedan, but a number of tribes have remained spirit worshippers.

Agriculture has expanded rapidly in recent years. Millet, rice and maize are the principal food crops, and vegetable oils are a leading commercial product. Peanuts, the chief export crop (1950: 786,000 metric tons) are cultivated in Sénégal, and palm kernels and oil are produced in Dahomey and the Ivory Coast. Other products are coffee, cotton, cacao and bananas. Stock raising is important in French Sudan and Mauritania, relatively dry districts in the northern part of the area. Manufacturing is undeveloped except for small native industries. Expansion is hindered by limited power facilities.

Imports in 1951 totaled 61,335,900,000 fr. C.F.A., including cotton textiles, machinery, vehicles and metal products. Sénégal and the Ivory Coast account for over half the exports, which totaled 38,697,700,000 fr. C.F.A. in 1951 and included coffee (25%), peanuts, peanut oil and cacao. France took 71% of the exports and supplied 73% of the imports.

The middle Niger and lower Sénégal Rivers are navigable, but French West Africa's railways (1949: 2,435 mi.) are more important as interior communications. Dakar, with the best harbor on the west African coast, is the principal port and also an important stop on international air routes between South America and Europe. There are several other good ports.

The estimated budget for 1951 balanced at 27,884,000,000 fr., over a third of which was the total local budget of the eight component colonies.

Gold, found in alluvial deposits in Sénégal and in veins in the Ivory Coast, and diamonds are the only important minerals. (Production of gold, however, has dropped sharply in recent years). Timber and precious woods are important, especially in the Ivory Coast. Forest products include timber, mahogany logs, gum arabic, shea butter (a solid, white fat obtained from the seeds of the shea tree) and nuts, kapok and beeswax.

TOPOGRAPHY AND CLIMATE. The area, comprising a sixth of Africa, is half as big as Europe; it is generally a plateau broken by two mountain ranges. The Futa Jallon, from 2,300 to 4,900 feet in elevation, parallels the coast for about 430 miles, and Mount Nimba, on the Liberian border, rises 5,250 feet. There are also mountainous regions in the Sahara districts to the north. The Niger, 2,600 miles long, is the principal river.

The central and northern parts of the colony have two seasons, rainy and dry. In the southernmost regions there are two rainy seasons, separated by a short dry season. Average annual rainfall at St. Louis is 16.7 inches; at Dakar, 20.2 inches. Temperatures on the west coast average about 70° in winter and 82° in summer, with daily variation of about 20°.

MADAGASCAR AND DEPENDENCIES—Status: Overseas territory.

Capital: Tananarive (Antananarivo) (est. pop. 1948: 171,052).

Governor General: Robert Baryes.

Foreign trade (1951): exports, 13,436,500,000 fr. C.F.A. (70% to France); imports, 22,400,500,000 fr. C.F.A. (77% from France). Chief exports: coffee (39%), cloves (8%), meat (7%).

Agricultural products (1951): rice, 885,000 metric tons; raw sugar, 20,000 tons; coffee, 30,700 tons; vanilla, manioc, bananas, maize, coconuts.

Minerals: graphite (1951): exports, 17,662 metric tons), mica, phosphates, gold.

Forest products: gum, medicinal plants, rubber, tannins, dyewoods.

Madagascar, lying off the southeast coast of Africa, is the fourth largest island in the world, with a length of 995 miles and an average width of 250 miles. It remained independent under native rulers until 1885, when it came under French protection. French troops conquered the island in 1895 and it became a French colony the following year. The last native ruler, Queen Ranavalona III, was exiled.

British troops landed on the island May 5, 1942, during World War II, and an armistice with Vichy French forces was signed November 5, 1942. The island is administered by a governor general responsible to the Minister for France Overseas in Paris, assisted by a General Assembly. Native nationalist outbreaks occurred in 1947, and French troops maintained order with difficulty.

The chief occupations are cattle raising (1950: 5,630,000 cattle) and agriculture; there are several food-processing and textile plants. The chief port is Tamatave on the east coast; the capital, Tananarive, is located on the central plateau. In 1948 there were 54,378 French and other non-native residents, including Hindus, Arabs and other Asiatics. The natives, collectively known as Malagasy, are divided into several tribes. Outlying dependencies include the islands of Europa, Juan da Nova, Bassas da India and Glorieuses.

The Comoro Islands (800 sq. mi.), formerly a dependency, became an autonomous territory in 1946.

The climate of Madagascar is generally tropical, with a warm and wet season from November to April and a cool, dry season the rest of the year. Temperatures vary between 55.5° and 95° (at Tamatave, 80° in February, 68° in July).

RÉUNION (Bourbon)—Status: Département of Metropolitan France.

Capital: St. Denis (population: 36,096).

Prefect: Pierre Philip.

Foreign trade (1951): exports, 4,474,800.-000 fr. C.F.P.*; imports, 709,000,000 fr. C.F.A. Chief exports: sugar, essential oils (geranium oil, oil of vetiver, oil of ilang-iliang), rum.

Agricultural products: sugar, vanilla, coffee, maize.

Discovered by Portuguese navigators in the 16th century, the island, then uninhabited, was taken as a French possession in 1638. It is located about 450 miles east of Madagascar, in the Indian Ocean.

There is no indigenous population. About three-quarters of the inhabitants are of European origin; the remainder are Creoles, mulattoes, Negroes, Indians and other Asiatics. Tropical cyclones of hurricane variety are frequent during the change of seasons. Occasionally a *raz de marée* (tidal wave) does great damage. Sugar-cane cultivation and the production of rum are the principal occupations.

TOGO—Status: U. N. trust territory.

Capital: Lomé (population 30,063).

Commissioner: Laurent Pechoux.

Foreign trade (1951): exports, 2,698,800.-000 fr. C.F.A.; imports, 2,331,200,000 fr. C.F.A. Chief exports: cacao, palm kernels, coffee, copra.

Agricultural products: cacao, palm kernels and oil, cotton, copra, coffee.

Mineral: iron ore.

Forest products: dyewoods, oil palms.

Togo, a part of the former Slave Coast, lies between the British Gold Coast colony and French West Africa. Established as a German colony in 1884, the area was divided as a League mandate by France and Britain at the end of World War I, with France obtaining two-thirds of the total area. It was placed under U. N. trusteeship in Dec. 1946 and is administered with French West Africa. Agriculture and grazing are the chief industries. In 1948, there were 1,082 Europeans. The coastline, only 32 miles long, is low, sandy and without harbors.

The coastland climate is hot, humid and unhealthful, with wet seasons lasting from March to June and from September to November.

Tunisia (Protectorate)

Ruler (Bey): Sidi Mohammed al-Amin. Resident General: Jean de Hautecloque.

Prime Minister: Salaheddin Baccouche.

Principal cities (census 1946): Tunis, 364,593 (capital); Sfax, 54,637 (phosphate port); Bizerte, 39,327 (seaport and naval base); Sousse, 36,566 (seaport).

Monetary unit: French franc.

Languages: Arabic, French, Italian.

Religion: Predominantly Mohammedan.

HISTORY. Tunisia was settled by the Phoenicians and Carthaginians in ancient

times. Except for an interval of Vandal conquest in A.D. 439-533, it was part of the Roman Empire until the Arab conquest of 648-69. Then it was ruled by various Arab and Berber dynasties until the Turks took it in 1570-74. The founder of the present dynasty, Husseln ben'Ali, was proclaimed sovereign by the occupation troops in 1705 and later succeeded in making the office hereditary, although subject to nominal Turkish sovereignty.

Throughout much of its history, Tunisia was essentially a pirate state, preying on Mediterranean shipping. In modern times, Italy became predominant economically in the area, but after French troops occupied the area in 1881, the Bey signed a treaty acknowledging a French protectorate.

Following the Allied landings in North Africa in 1942, Tunisia became a battleground with the Axis forces pinched between the British 8th Army advancing from Libya and the U. S., British and French forces from Algeria. The Axis units surrendered in May, 1943, and Tunisia was turned over to the De Gaulle government. On May 15, 1943, the reigning Bey, Sidi Mohammed al-Mounsaf, was removed and replaced by his cousin, the present ruler.

Fanned by Arab nationalist agitation elsewhere, the Tunisian nationalist party, *Destour*, although banned by the French, has intensified its activity in recent years. Its aim is the complete independence of Tunisia and its adherence to the Arab League.

GOVERNMENT. Although the Bey is theoretically sovereign, a French resident general directs the government, assisted by a cabinet with some Tunisian members. An agreement looking toward wider self-rule was signed in Feb., 1951.

The Southern Territory is subject to military administration.

SOCIAL AND ECONOMIC CONDITIONS. In 1950, Tunisia's 633 public and 153 private schools had 175,262 pupils, about a third of them French and Italian. The Great Mosque at Tunis is a Moslem University.

Tunisia's population (by the 1946 census, 87.4 per cent Arab) is concentrated in the cities and on the coast. There are about 100,000 nomads.

Agriculture is the chief industry. Over a quarter of the arable land is in wheat (1951: 330,000 metric tons). Other important crops are barley, oats, corn, sorghum, beans and peas. Average annual wine production is about 38,000,000 gallons (1951: 20,500,000). Average annual olive oil production is about 45,000 metric tons (1950: 46,000 tons). The Cape Bon region is largely devoted to citrus fruits, the southern oases to dates. In 1948 there were 1,588,000 sheep, 1,083,000 goats, 341,000

cattle and 177,000 camels. More than 50,000 sheep and 4,000 tons of wool a year are usually exported.

Leading industries include flour milling, oil refining, lead smelting and distilling. Native industries include the spinning and weaving of wool, and the making of pottery and leather goods.

Tunisia, Algeria and France are under a single customs union for a number of products. Exports in 1951 were valued at 35,212,100,000 fr., of which 45% went to France. They included phosphates (16%), alfa (esparto grass) (15%), olive oil (10%) and lead (9%). Imports were valued at 59,494,700,000 fr., of which 75% came from France. The leading items were sugar (7%), petroleum and products (7%), cotton textiles (6%) and automobiles and trucks (3%).

There were 8,700 miles of roads and 1,351 miles of railway in 1950. Tunis, Bizerte, Sousse and Sfax are the principal ports.

The 1950 budget balanced at 33,640,000,000 fr. State monopolies, including tobacco, provide about 25 per cent of the revenue and indirect taxes about half.

Tunisia's extremely rich deposits of phosphates are mined principally in the Gafsa and Kef regions. Production in 1951 was 1,742,100 metric tons. The iron ore is of good quality (1951: 916,800 tons). Other minerals are lead (1950: 54,400 tons), zinc, mercury, manganese, copper, salt and poor-grade lignite.

Products derived from Tunisia's 2,500,000 acres of forests include lumber, mine props and cork. Alfa is exported, mainly to England, for making of paper pulp. About 20,000 Tunisians work at fishing; the catch averages 8,000 tons of fish and 95 tons of sponges annually.

TOPOGRAPHY AND CLIMATE. Tunisia, at the northernmost bulge of Africa, thrusts out toward Sicily to mark the division between the eastern and western Mediterranean. It is mountainous in the north, covered by plains in the east, and projects southward to the Sahara area. Its principal river, the Medjerda, in the north, is 228 miles long. The climate is Mediterranean with mean temperature extremes at Tunis of 52.7° and 79.2°. Annual rainfall ranges from 24 inches in the north to less than five inches in the south.

WESTERN HEMISPHERE

FRENCH GUIANA (including ININI)—Status: Département of Metropolitan France.

Capital: Cayenne (population 10,961).

Prefect: Robert Vignon.

Foreign trade (1950): exports, 210,200,000 fr.; imports, 1,706,300,000 fr. Chief export: gold (77%).

Agricultural products: bananas, cacao, corn, manioc, rice, sugar cane.

Mineral: gold (1950: 13,812 troy oz.).

French Guiana, lying north of Brazil and east of Surinam (Dutch Guiana) on the northeast coast of South America, was first settled in 1626. Penal settlements, embracing the area around the mouth of the Maroni River and the Iles du Salut (including Devil's Island), were founded in 1852; they have now been replaced by refugee camps.

During World War II French Guiana at first adhered to the Vichy government, but the Free French took over in March, 1943. The large and scantily populated territory of Inini in the hinterland is administered separately. Economic development is extremely backward; transportation is almost entirely by water, conditions are unsanitary and large quantities of foodstuffs must be imported. Gold is the chief export.

January temperatures average 79°, September and October temperatures 82°. Rainfall is heavy.

GADELOUPE—Status: Département of Metropolitan France.

Capital: Basse-Terre (population 13,638).

Prefect: Gaston Villeger.

Foreign trade (1950): exports, 6,008,100,000 fr.; imports, 7,442,200,000 fr. Chief exports: sugar (55%), bananas.

Agricultural products (1951): sugar (78,000 metric tons), bananas (exports, 5,209,000 bunches), coffee, cacao, manioc, vanilla.

Guadeloupe, lying in the West Indies about 300 miles southeast of Puerto Rico, was discovered by Columbus in 1493. French colonization began in 1635. It consists of two large islands, separated by a narrow arm of the sea, and several outlying smaller islands. Most of the population is Negro and mulatto. The largest city and chief port is Pointe-à-Pitre (population 44,551). About half the cultivated area is devoted to sugar cane. The manufacturing of rum and spirits is the principal industry. Mean annual temperature is 78°.

MARTINIQUE—Status: Département of Metropolitan France.

Capital: Fort-de-France (population 64,525).

Prefect: Christian Lalgrat.

Foreign trade (1951): exports, 7,497,400,000 fr.; imports, 10,910,200,000 fr. Chief exports: sugar (34%) rum, bananas.

Agricultural products: sugar (1951: 67,000 metric tons), bananas, pineapples, cacao, coffee.

Manufactures: rum, sugar.

Martinique, lying in the Lesser Antilles about 300 miles northeast of Venezuela, was probably discovered by Columbus in 1502 and was taken for France in 1635. Following the Franco-German armistice of 1940 it had a semi-autonomous status under the High Commissioner, Admiral Georges Robert, until 1943, when he relinquished his authority to the Free French. The area, administered by a pre-

fect assisted by an elected council, is represented in the French legislature. The population is mainly Negro and mulatto. Most of the arable land is devoted to sugar cultivation. Fort-de-France, the capital and chief commercial center, has an excellent harbor. Mean annual temperature of the coast region is 80° (77° in January, 83° in June).

ST. PIERRE AND MIQUELON—Status: Overseas territory.

Capital: St. Pierre.

Administrator: Irénée Davier.

Foreign trade (1951): exports, 228,300,000 fr.; imports, 409,900,000 fr. Chief export: cod and other fish products.

The sole remnant of the French colonial empire in North America, these islands were first occupied by the French in 1660. Their only importance arises from proximity to the Grand Banks (10 mi. south of Newfoundland) making them the center of the French Atlantic cod fisheries.

ASIA

FRENCH INDIA—Status: Overseas territory.

Capital: Pondichéry (population 53,101).

Commissioner: André Ménard.

Chief exports: peanuts, cotton textiles.

Agricultural products: peanuts, manioc, rice, onions.

French India is a collective name for the scattered French possessions in India—on the Coromandel coast are Pondichéry, Karikal and Yanam; on the Malabar coast, Mahé. The chief possession is Pondichéry, founded by the French in 1674. The governor, responsible to the Minister for France Overseas in Paris, is assisted by a representative assembly. More than 90 per cent of the population of French India is Hindu.

Chandernagor, in Bengal, formerly part of French India, was transferred to India on May 2, 1950, in accordance with a popular referendum. The future status of the remainder of French India is also to be determined by referendum.

Indo-China

High Commissioner: Jean Letourneau.

Ruler, Viêt-Nam: Bao Dai.

King, Cambodia: Norodom Sihanouk.

King, Laos: Sisavang Vong.

Principal cities (est. 1949): Saigon (including port of Cholon), 256,000 (capital, Viêt-Nam); Hanoi, 160,000 (commercial center, Viêt-Nam); Pnom-Penh, 128,950 (capital, Cambodia); Haiphong, 92,000 (seaport, Viêt-Nam).

Monetary unit: Plaster.

Languages: Annamese, Cambodian, French.

Religions: Buddhism, Christianity (4%).

HISTORY, GOVERNMENT. Indo-China, at the southeast corner of Asia, first met the West in the 16th century, when Portuguese traders and missionaries arrived,

French influence dates from 1787, and in the 19th century France received preferential treatment for helping the emperor of Annam recover his throne. During the last half of the century, France gradually extended influence over the whole.

After France fell in 1940, Vichy authorized the entry of Japanese troops, and the country became one of the springboards for the Japanese campaign against Singapore. When, in March, 1945, the Japanese seized control of the whole country, Annam and Cambodia declared their independence. After the Japanese surrender, British and Chinese troops occupied Indo-China in the face of a growing nationalist movement, and restored order for the French authorities, who assumed control officially on March 4, 1946.

Until the beginning of World War II, Indo-China was an administrative federation of one colony—Cochin-China; four protectorates—Annam, Tongking, Cambodia and Laos; and a special territory—Kwangchowwan (returned to China in 1945). These had various degrees of native rule, but the real administrator of each unit was the French chief resident.

Early in 1945, France announced its intention of organizing the area into five states constituting a federal union, with the components enjoying limited self-government under a French governor general and the Federation a component part of the French Union. France was not able, however, to carry out this plan in its entirety, largely because of difficulties which it encountered in Viêt-Nam.

The Republic of Viêt-Nam—comprising Tongking and the northern part of Annam—had been recognized on March 6, 1946, as a free state within the Indo-Chinese Federation and the French Union. Viêt-Nam leaders, however, headed by Dr. Ho Chi Minh, a Communist, demanded a greater measure of autonomy and cession of the rich rice area of Cochin-China as well as southern Annam. The French steadfastly refused to accede to these demands, and fighting resumed on Dec. 19, 1946.

In the spring and summer of 1947, reinforced French troops won control over most major points in Viêt-Nam. On June 5, 1948, a new government uniting pro-French groups in Annam, Tongking and Cochin-China was set up, and a treaty signed that day recognized the unity of the new state within the French Union.

Meanwhile, guerrillas still held back areas. Communist forces attacked with renewed vigor in 1950, and French forces had to fall back in many places.

An agreement to fulfill the 1948 treaty, signed at Paris March 8, 1949, and effective June 14, gave Viêt-Nam full internal sovereignty and limited diplomatic repre-

sentation abroad. In April, 1949, the newly elected assembly of Cochín-China voted to exercise its option of joining the new state. On June 14, Bao Dai, former emperor of Annam, proclaimed himself head of the new state with French approval.

Similar agreements in respect to Laos and Cambodia were concluded on July 19 and Nov. 8, 1949, respectively.

Indo-China is thus made up of the states of Viêt-Nam, Laos, and Cambodia, each an independent and self-governing state within the French Union. The Union is represented in Indo-China by a high commissioner who coordinates services common to the three states, such as the fiscal, immigration and customs services. The high commissioner is represented in each state by a commissioner.

SOCIAL AND ECONOMIC CONDITIONS. Viêt-Nam, consisting primarily of the densely populated eastern and southeastern coastal areas, contains about 85 per cent of the population of Indo-China. The majority of its population is Annamese and speaks the Annamese language. The kingdom of Cambodia, in the southwest, contains part of the Mékong river delta and is populated largely by Cambodians, who speak their own language. Laos, in the west and northwest, is sparsely populated by the Laotians and 3 ethnical minorities who belong to the Thai, Indonesian and Chinese races.

Rice, grown on five-sixths of the cultivated land, employs and feeds most of the population, and is normally the leading export and chief source of wealth. Production, centered in Cochín-China, ordinarily averages up to 4,500,000 metric tons annually (1951-52: 5,700,000 tons). Other crops include maize, sugar, cotton, tobacco, tea, coffee, peanuts, sweet potatoes and beans.

Indo-China is largely an exporter of raw materials. Its factories are small and process goods for local consumption or agricultural and forest products for export. Most important are the rice and saw mills. There are also cotton and silk textile factories, sugar refineries, match, cement and paper factories.

Viêt-Nam, Cambodia and Laos make up a single customs union. Exports in 1951 were 47,244,400,000 fr.; imports, 106,663,400,000 fr. The chief exports were rubber (44%), rice (31%) and maize (4%). Principal customers were France (38%), the French Union (11%) and the U. S. (11%). France (77%) and the U. S. (5%) were the leading suppliers.

Indo-China has several thousand miles of rivers and canals, including the Mékong River, which is navigable for two-thirds of its course. There are about 2,000 miles of railways. An excellent highway system includes 5,563 miles of improved road, and 11,477 miles of local road. Unreplaced

bridges, wartime attrition and guerrilla activity still hamper traffic.

Mining is most developed in Tongking. Output of coal in 1951 was 620,300 metric tons. Iron ore, tin, zinc, tungsten, gold, phosphates, manganese, bauxite and lead are also mined.

Forests cover 76,570,000 acres of Indo-China. The high mountain ranges of the north supply valuable tropical hardwood, bamboo, lacs and vegetable oil. Laos has rich teak forests. Rubber production in 1951 was 48,075 metric tons, about three-fourths of prewar output. The industry centers in Cochín-China. Fishing provides a major staple food to go with rice.

TOPOGRAPHY AND CLIMATE. Extending about a thousand miles from north to south, Indo-China has two great delta regions—the Mékong in the south and the Song Koi in the north. These are separated by the Annam Mountains, and to the west of them are the mountainous continental regions of Laos. The climate is monsoonal, with nearly all of the very heavy rainfall between May and October; April and May are the hottest months (86° to 93.2°). Laos, in the interior, is cooler and drier than most of Indo-China.

OCEANIA

FRENCH PACIFIC SETTLEMENTS—Status: Overseas territory.

Governor: René Petitbion.

Capital: Papeete, on Tahiti (population 1946: 12,428).

Foreign trade (1951): exports, 643,000,000 fr. C.F.P.*; imports, 709,000,000 fr. C.F.P. Chief exports: copra, phosphate, vanilla.

Agricultural products: coconuts, sugar, vanilla, tobacco.

Mineral: phosphate (exports 1951: 227,858 metric tons).

* Colonies Françaises du Pacifique, equal to 5½ metropolitan francs.

The term French Pacific Settlements is applied to the scattered French possessions in the eastern Pacific—Mangareva (Gambier), Makatea, Marquesas Islands, Rapa, Rurutu, Rimatara, Society Islands, Tuamotu Archipelago, Tubuai and Raiatea—which were organized into a single colony in 1903. The appointed governor is assisted by an administrative council. The principal and most populous island—Tahiti, in the Society group (pop. 1946: 24,820)—was claimed as French in 1768. Plebiscites conducted in September, 1940, gave support to the Free French movement of Gen. de Gaulle. The natives are mostly Polynesians. The climate of Tahiti is hot and humid, but not unhealthful. There is no clear division of seasons.

NEW CALEDONIA AND DEPENDENCIES Status: Overseas territory.

Capital: Nouméa (population 16,000).

Governor: Raoul Angammaine. (also

French Commissioner General in the Pacific).

Foreign trade (1951): exports, 688,300,-000 fr. C.F.P.; imports, 755,400,000 fr. C.F.P. Chief exports: nickel, chrome ore, coffee, copra, shells.

Agricultural products: coffee, copra, corn, cotton, manioc, rice, tobacco.

Minerals (1951): nickel (3,600 metric tons, matte); chromite (88,400 tons).

Sea product: mother-of-pearl.

New Caledonia (6,533 sq. mi.), lying about 1,070 miles northeast of Sydney, Australia, was discovered by Captain James Cook in 1774 and annexed by France in 1853. The government, in the hands of an appointed governor and an elective council, also administers the Isle of Pines, the Wallis Archipelago, the Loyalty Islands, the Chesterfield Islands, Walpole, the Huon Islands, Futuna and Alofi, with a total area of 1,121 square miles. The area—taken over in the summer of 1940 by the Free French after a bloodless revolution—is one of the richest of the Pacific islands in mineral resources, particularly nickel and chrome ore. The natives are Melanesians; about one-third of the population is white and one-fifth Indo-Chinese and Javanese. A French penal colony was established in the 19th century. Average temperature on New Caledonia varies between 65° and 72°.

NEW HEBRIDES—Status: Anglo-French condominium.

Capital: Vila (population 1,200).

Foreign trade (1950): exports, £419,-000; imports, £528,000. Chief exports: copra, cacao.

Agricultural products: coconuts, cacao, coffee.

Sea products: trochus and burghaus shell.

The New Hebrides, under joint Anglo-French administration since 1914, lie northeast of New Caledonia. The islands, about 40 in number, joined the Free French movement after a plebiscite in July, 1940. Most of the natives are Melanesians of mixed blood; there were 345 British and 1,195 French in 1949. The largest island is Espiritu Santo (875 sq. mi.). The French and British high commissioners in the Pacific are represented by resident commissioners.

Germany

HISTORY. In Caesar's time, the territory that is now Germany was inhabited by barbarous tribes that came originally perhaps from Central Asia. One of these Germanic tribes, the Franks, attained supremacy in western Europe under Charlemagne, who was crowned Holy Roman Emperor in A.D. 800. By the Treaty of Verdun (843), Charlemagne's lands east of the Rhine were ceded to the German prince Louis. Additional territory acquired by the Treaty of Meerssen (870) gave Germany ap-

proximately the area she maintained throughout the Middle Ages. For several centuries after Otto the Great was crowned king in 936, the German rulers were also usually heads of the Holy Roman Empire.

Relations between State and Church were changed by the Reformation, which began with Martin Luther's 95 theses, and came to a head in 1547, when Charles V scattered the forces of the Protestant League at Mühlberg. Freedom of worship was obtained by the Peace of Augsburg (1555), but a Counter Reformation took place later, and a dispute over the succession to the Bohemian throne brought on the Thirty Years' War (1618-48) which devastated Germany and left the empire divided into hundreds of small principalities virtually independent of the emperor. Meanwhile, Prussia was developing into a province of considerable strength. Frederick the Great (1740-86) reorganized the Prussian army and defeated Maria Theresa of Austria in a struggle over Silesia. The conflict with revolutionary France hastened the disintegration of the empire, and in 1806 Francis II of Austria laid down the Imperial German crown. After the defeat of Napoleon at Waterloo (1815), the struggle between Austria and Prussia for supremacy in Germany continued, reaching its climax in the defeat of Austria in the Seven Weeks' War (1866) and the formation of the Prussian-dominated North German Confederation (1867).

At the close of the victorious war with France (1870-71), William I, King of Prussia, was crowned Emperor of Germany (Jan. 18, 1871). Under the guidance of the Imperial Chancellor, Prince Bismarck, Germany took a new place in world affairs, at the same time expanding her foreign trade and home industry rapidly. The Triple Alliance was formed with Austria and Italy in 1882. However, upon the accession of William II (1888-1918), Bismarck was dismissed and Russia was alienated. International rivalry was intensified in the early years of the 20th century, culminating in World War I, in which Germany, supporting Austria-Hungary's demands on Serbia, suffered final defeat. By the terms of the Treaty of Versailles (1919) Germany lost about 27,000 square miles of territory, including all her colonies, plus Alsace-Lorraine, northern Schleswig, Eupen-Malmédy, Upper Silesia, and considerable areas in the east. William II had abdicated (Nov. 9, 1918), and a federal republic was organized under the constitution adopted at Weimar in 1919. The constitution was attacked by both the Right and Left; several Communist uprisings took place in the early 1920's, and in 1932 Adolf Hitler's abortive putsch was defeated. Germany's inability to fulfill the heavy reparations demands stipulated by the Treaty of Ver-

sailles led to French occupation of the Ruhr (1923-25). National bankruptcy was avoided by adoption of the Dawes Plan (1924) and later, the Young Plan.

The chancellorship of Brüning, leader of the Catholic Center party (1930-32), saw increasing economic and financial distress and the practical cessation of reparations payments. Hitler's rising National Socialist party won a plurality in both the July and November Reichstag elections in 1932, but not until the failure of Franz von Papen and Kurt von Schleicher to form governments did President Hindenburg name Hitler chancellor (Jan. 30, 1933). With the death of Hindenburg in 1934, Hitler became complete master of Germany, which he rapidly converted into a totalitarian state under the aegis of the Nazi party. All other political parties were banned, and the Jews were subjected to severe persecution. Through his foreign policy, Hitler repudiated the Treaty of Versailles and began full-scale rearmament. In 1935 he withdrew from the League of Nations and in 1936 he reoccupied the Rhineland and signed the anti-Comintern pact with Japan, at the same time strengthening relations with Italy. Austria was annexed in March, 1938. By the Munich agreement (Sept., 1938) he gained the Czech Sudetenland, and in violation of this agreement he completed the dismemberment of Czechoslovakia in March, 1939. But his invasion of Poland on Sept. 1, 1939, precipitated British and French declarations of war.

On May 8, 1945, Germany surrendered unconditionally to Allied and Soviet military commanders, and on June 5 the four-nation Allied Control Council became the *de facto* government of Germany.

At the Berlin (or Potsdam) Conference (July 17-Aug. 2, 1945) President Truman, Stalin and Prime Minister Attlee set forth the principles by which the Allied Control Council was to be guided. They were: Germany's complete disarmament and demilitarization; destruction of its war potential; rigid control of industry; decentralization of the political and economic structure. Pending final determination of territorial questions at a peace conference, the three victors agreed in principle to the ultimate transfer of the city of Königsberg (now Kaliningrad) and its adjacent area to the Soviet Union and to the administration by Poland of former German territories lying generally east of the Oder-Neisse line.

For purposes of control, Germany was divided in 1945 into four national occupation zones, each headed by a military governor, assisted by appropriate supervisory and operating staffs.

Efforts to unify Germany were totally unsuccessful, and the western powers were

unable to agree with the U.S.S.R. on any fundamental issue. Work of the Allied Control Council was hamstrung by repeated Soviet vetoes; and finally, on March 20, 1948, the U.S.S.R. walked out of the Council. Meanwhile, the U. S. and Britain had taken steps to merge their zones economically (Bizonia); and on May 31, 1948, the U. S., Britain, France and the Benelux countries agreed to set up a German state comprising the three western zones. At the same time the western powers introduced a new German currency.

The Soviet Union replied to these measures by clamping a blockade on all ground communications between the western zones and Berlin. The western Allies, refusing to be driven out of the capital, immediately organized a gigantic airlift to fly supplies into the beleaguered city. Before the Russians were finally forced to lift the blockade on May 12, 1949, 60,000 men were engaged in the airlift.

In return for lifting the blockade, the U.S.S.R. asked only that the Big Four foreign ministers meet again to discuss German unification. The conference, meeting in Paris from May 23 to June 20, 1949, ended as usual in a deadlock.

German Federal Republic

Area: 94,634 square miles.

Population (census 1950*): 47,575,658 (predominantly German).

Density per square mile: 502.7.

Allied High Commission: Walter J. Donnelly (U.S.A.); Sir Ivone Kirkpatrick (United Kingdom); André François-Poncet (France).

President: Theodor Heuss.

Chancellor: Konrad Adenauer.

Principal cities (census 1950*): Hamburg, 1,605,000 (chief port); Munich, 831,000 (Bavarian capital); Essen, 695,000 (steel works); Cologne, 590,000 (transportation center); Frankfurt am Main, 524,000 (manufacturing); Bonn, 111,000 (capital).

Monetary unit: Deutschemmark (Dm.).

Language: German.

* Preliminary figures.

The German Federal Republic came into formal existence on Sept. 21, 1949, when the Allied High Commission turned over to it the administration of the U. S., British and French zones of occupation of Germany. Its creation marked the culmination of the Anglo-U. S.-French policy of progressively handing back to Germany its sovereignty and of modifying and reducing the restrictions and limitations on its industry. Preliminary steps reflecting this policy were: (1) the Anglo-U. S. agreement which took effect Jan. 1, 1947, providing that the U. S. and British zones should be treated as a single area for all economic purposes; and (2) the promulgation on Feb. 9, 1948, of a new bizonal charter providing for an economic council

of 104 members to control all economic affairs in the U. S. and British zones.

On April 8, 1949, the Allied governments approved the terms of the Occupation Statute defining the basis for the merger of the U. S., British and French zones. On May 8, the German constituent assembly at Bonn approved a Basic Law or constitution for western Germany; it came into force on May 23, after approval by the *Landtage* of the 11 constituent *Länder*. Parliamentary elections were held on Aug. 14; and on Sept. 12, Free Democratic leader Theodor Heuss was elected president of western Germany. On Sept. 15, the *Bundes-tag* confirmed his appointment of Konrad Adenauer, leader of the Christian Democratic party, as chancellor. Bonn was selected as the federal capital on Nov. 3.

GOVERNMENT. Subject to the provisions of the Occupation Statute, the republic and the participating *Länder* acquired full legislative, executive and judicial powers in accordance with the Basic Law and their respective constitutions. The principal powers reserved to the Allied High Commission were those of foreign policy, disarmament and demilitarization, Ruhr control, reparations, decartelization, and security of Allied occupation forces.

The Occupation Statute was amended on March 6, 1951, on the basis of an agreement between the U. S., Britain and France, to provide for creating a German foreign affairs ministry and further progressive relaxation of Allied controls.

Western Germany will have almost complete self-government subject to Allied defense rights under a peace contract signed May 26, 1952. The contract was subject to ratification by signatory countries, as was an agreement signed May 27 creating within NATO a European defense community with a joint European army to which western Germany would contribute.

The Basic Law or constitution of the republic provides for a federal form of government headed by a president elected every 5 years by a federal convention. The parliament consists of a *Bundestag* whose members are elected every 4 years by popular vote and a *Bundesrat* whose members are appointed by the *Länder* governments. Actual executive power is in the hands of the cabinet, answerable to the *Bundestag* and headed by a chancellor appointed by the president, subject to the right of the *Bundestag* to elect a chancellor of its own preference. Provision was made for the accession of *Länder* in the Soviet zone. Each constituent *Land* must have a republican form of government with an assembly elected by universal suffrage.

The party standing in the *Bundestag* was as follows in 1952: Christian Democrats 143, Socialists 131, Free Democrats 51, Communists 14, others 63.

On April 28, 1949, the international Ruhr authority was formally set up to allocate the production of the Ruhr industrial area under the terms of a statute framed by representatives of the U. S., United Kingdom, France, Belgium, the Netherlands and Luxembourg.

The area and population of the republic, according to zones, was as follows in the census of 1950:

Zone	Area (sq. mi.)	Population
British	37,723	24,140,411
French	15,405	5,570,109
U. S.	41,506	17,865,138
Total	94,634	47,575,658

EDUCATION. Education is compulsory between the ages of 6 and 14. In May 1950, there were 28,400 elementary schools with 6,291,000 pupils, 579 higher elementary schools with 196,067 pupils, 1,488 secondary schools with 620,488 students, and 16 universities with 74,258 students.

AGRICULTURE. About 35 per cent (34,000 square miles) of western Germany's total area is arable. Agriculture is characterized by mixed farming, the climate and the soil permitting cultivation of a variety of crops and most types of livestock. Rye and potatoes are staple crops in the north; grains and sugar beets in the central regions. The northwestern and southern areas are noted for dairying, while the west is the chief fruit- and wine-producing region. The soil is generally poor, and high crop yields are dependent upon large-scale use of fertilizers.

Production data for western Germany (excluding the Saar) are as follows (thousands of metric tons):

	1949	1950	1951
Wheat	2,471	2,614	2,949
Rye	3,310	3,021	3,034
Barley	1,213	1,473	1,688
Oats	2,600	2,545	2,835
Potatoes	20,875	27,959	24,103
Sugar beets	4,240	7,016	6,974

In Dec. 1950, western Germany (excluding the Saar) had 11,150,000 cattle, 11,890,000 hogs, 1,570,000 horses and 1,642,000 sheep.

Western Germany is not self-sustaining in food. Difficulties stem to a considerable extent from the fact that Poland now controls the area east of the Oder-Neisse, which contained 28 per cent of prewar Germany's arable land and produced about 25 per cent of its food. Moreover, the population has grown rapidly.

INDUSTRY. Western Germany's industry is well-developed and highly diversified. It accounted for about two-thirds of Germany's prewar industrial production and for a large part of iron and steel produc-

tion. In Sept. 1951, employment in industry was 14,884,500; there were 1,234,900 unemployed.

Production data for western Germany (monthly averages, in thousands of metric tons) are as follows:

	1949	1950	1951
Pig iron and ferroalloys	595	789	891
Steel ingots and castings	763	1,010	1,125
Cement	705	906	1,017
Cotton yarn	19.06	23.54	26.98
Wool yarn	5.42	7.09	7.67
Rayon yarn	3.76	4.05	4.50
Automobiles	8.67*	18.01*	22.28*

* Thousands of units.

Steel production is limited by agreement among the occupying powers to 11,100,000 tons per year, unless additional production is found to aid western European defense. Production of war material is still prohibited; the ban on production of certain light metals, synthetic rubber, gasoline and oil and machine tools was lifted in April, 1951, subject to capacity limitations in some cases. Industrial production was 148% of the 1936 level in 1951.

TRADE. Western Germany is dependent upon extraordinary foreign aid to pay for a considerable portion of the food and industrial raw materials which it must import. Recent foreign trade data for the area which now comprises the republic are as follows (in millions of Deutsche marks):

	1949	1950*	1951*
Exports	1,129†	8,362	14,579
Imports	2,248†	11,374	14,726

* Including west Berlin. † Millions of U. S. dollars.

Leading exports in 1951 were machinery and vehicles (27%), coal and coke (11%), iron and steel (11%) and advanced steel manufactures (9%). Leading customers were the Netherlands (10%), France (8%), and Belgium, Sweden and the U. S. (each 7%); leading suppliers, the U. S. (18%), the Netherlands (7%) and France and Sweden (each 5%).

COMMUNICATIONS. German railway trackage and rolling stock, as well as the canal system, were largely destroyed during World War II, and the lack of adequate transportation seriously hindered German economic recovery. In Dec. 1950, the western German rail network had a total length of about 19,100 miles, all publicly owned.

Civil air transport is handled by foreign air lines, Germany being prohibited from establishing its own lines. As of July, 1949, the west German merchant fleet consisted of about 1,100 small ships (none over 1,500 tons), with total gross registered tonnage of 270,000. The principal seaports are Hamburg and Bremen.

Inland waterway transportation is of great importance. Over half the traffic is carried on the Rhine River, which links the Ruhr area with Belgian and Dutch ports. Shipping on the Rhine is controlled by the Central Commission of the Rhine—an international body composed provisionally of U. S., British, French, Swiss, Dutch and Belgian representatives—which was reconvened in October, 1945.

FINANCE. Recent data are as follows (in millions of Deutsche marks):

	1951-52*	1952-53†
Revenue	16,377	19,717
Expenditure	16,772	22,600

* Preliminary. † Preliminary budget estimate.

NATURAL RESOURCES. Aside from rich deposits of coal and potash, western Germany's mineral wealth is not considerable. The Ruhr, Krefeld and Aachen districts constitute one of the world's greatest coal mining regions, with total reserves estimated at 65,000,000,000 tons. Production in this area is handicapped by the prevalence of thin seams, but distribution is favored by easily accessible natural waterways and efficient canals. Known petroleum resources are meager, and supplies of iron ore, copper, lead and zinc are insufficient for domestic needs. Mineral production (excluding the Saar) was as follows in 1951: coal, 118,924,000 metric tons; lignite, 80,000,000 tons; iron ore, 12,925,000 tons.

About 23 per cent of the total area of western Germany is covered by commercial forests, which yield timber as well as material for paper, wood fiber, cellulose and other products.

TOPOGRAPHY. The northern plain, the central hill country and the southern mountain district constitute the main physical divisions of western Germany. The Bavarian plateau in the southwest averages 1,600 feet above sea level, but to the west, in the Black Forest, it reaches 9,721 feet in the Zugspitze, the highest point in Germany.

There are several important navigable rivers. In the south the Danube, rising in the Black Forest, flows east across Bavaria into Austria. The other important rivers flow north. The Rhine, which rises in Switzerland and flows across the Netherlands in two channels to the North Sea, is navigable by smaller ocean-going vessels as far as Cologne. The Rhine and the Elbe, which also empties into the North Sea, are navigable within Germany for ships of 400 tons. The Weser, flowing into the North Sea, and the Main and Mosel (Moselle), both tributaries of the Rhine, are also important.

CLIMATE. The climate of western Germany is intermediate between the oceanic climate of western Europe and the con-

tinental climate farther east. The average summer temperature is 60° to 62°. The sheltered mountain valleys of the south enjoy a more temperate climate, especially the valley of the Rhine above Mainz. Rainfall is heaviest in the south and west (over 30 inches).

German Democratic Republic

Area: 41,700 square miles.
Population (census 1946): 17,313,700 (predominantly German).
Density per square mile: 415.2.
Chairman, Soviet Control Commission: Marshal Vassili Chuikov.
President: Wilhelm Pieck.
Premier: Otto Grotewohl.
Principal cities (census 1946): Leipzig, 608,111 (trading, publishing center); Dresden, 463,032 (railway center, Elbe port); Chemnitz, 250,000 (textiles); Magdeburg, 236,000 (iron and steel products); Halle am Saale, 223,000 (railway center).
Monetary unit: Ostmark.

The so-called German Democratic Republic comprises the Soviet zone of occupation of Germany. It was proclaimed on Oct. 7, 1949, with its seat at Berlin, on the basis of a constitution adopted May 30, 1949, by a people's congress chosen under a plebiscite arrangement in elections held in the Soviet zone and eastern Berlin on May 15 and 16, 1949. The congress elected a people's council (*Volksrat*) which was transformed on Oct. 7 into a provisional people's chamber (*Volkskammer*). A chamber of the states (*Länderkammer*) was nominated on Oct. 10, and on Oct. 11 both chambers elected Communist-leader Wilhelm Pieck as president of the republic and Otto Grotewohl as minister-president or premier. The constitution is soviet in nature and the government is under complete Communist domination. Soviet government supervision is exercised by the Soviet Control Commission.

The republic lies largely between the Elbe and Oder rivers, including most of Brandenburg, Mecklenburg and the industrial Saxon and Thuringian lands.

About 22 per cent of the population is engaged in agricultural pursuits and the area is almost self-sufficient in foodstuffs. Postwar yields have, however, suffered from droughts and shortages of fertilizer. Recent production data are as follows (in thousands of metric tons):

	1948	1949	1950
Wheat	999	926	815
Rye	1,941	2,025	2,130
Oats	809	1,087*	1,140*
Sugar beets	4,126	3,545	5,400
Potatoes	12,408	8,499	13,060

* Includes mixed grain.

In Dec. 1950, there were an estimated 8,600,000 cattle, 5,700,000 hogs and (Sept. 1950) 900,000 sheep and 695,000 horses in the area.

Most of the industrial establishments, particularly in heavy industry, have been nationalized. The area accounted for 26 per cent of prewar Germany's industrial production, ranking first in textiles, paper and pulp and ceramics and glass (especially optical glass produced by the famous Jena works). Total production in 1948 was estimated at 55 to 60 per cent of the 1936 level. A Two-Year Plan inaugurated in 1949 had the object of raising the volume of production to 81 per cent of the 1936 level by the end of 1950. Unofficial production data for 1948 are as follows: pig iron, 173,000 metric tons; raw steel, 191,700 tons; caustic soda, 80,000 tons; rayon and staple fiber, 61,700 tons; yarn and thread, 80,000 tons. Production of raw steel in 1951 was estimated at 1,552,000 metric tons.

Foreign trade is carried on through government-owned trading companies. Trade is confined largely to Europe. Important imports include coal, iron and steel and farm and forestry products; exports include lignite and crude potash.

Railways, highways and inland waterways were reported in 1952 to be inadequate to meet the demands of the area's economy. The rehabilitation and expansion of transport facilities was emphasized in connection with the Two-Year Plan.

The area is not rich in minerals. It has only minor deposits of coal (1951 production: 2,500,000 metric tons) and deposits of iron ore are scanty and of low quality (1947: 280,000 tons). It does have important deposits of lignite (1951: 100,000,000 tons) and crude potash (1948: 823,000 tons).

The 1950 budget was estimated to balance at 13,500,000,000 ostmarks.

Most of the area is part of a low plain. The climate is temperate for the most part.

Berlin

Area: 344 square miles.
Population (est. June 1, 1949): 3,729,300.

Berlin, the capital of prewar Germany, is surrounded by the German Democratic Republic. It is occupied by the forces of the U. S., the U. K., France and the U.S.S.R., each having its own sector of occupation. The three western sectors contain 55 per cent of the area and 63 per cent of the population.

The supreme authority in western Berlin is exercised by the Allied High Commission; its representatives constitute a tripartite Kommandatura which has responsibility for the exercise of the powers reserved to the occupation forces under the Berlin Charter, a document analogous to the west German Occupation Statute. Other powers of government are exercised by a city assembly elected by popular vote

and a *magistrat* (city council) chosen by the assembly.

Supreme authority in the eastern sector of Berlin is exercised by the Soviet Control Commission. Powers not exercised by it or by the German Democratic Republic are vested in a "rump" city government, which proclaimed itself in power Nov. 30, 1948.

The Saar

Area: 898 square miles.
Population (est. 1950): 943,000.
Density per square mile: 1,050.1.
Premier: Johannes Hoffman.
Principal city: Saarbrücken (est. pop. 100,000).
Monetary unit: French franc.

The Saar is an industrial and mining region lying on Germany's western frontier north of Lorraine. Under the Treaty of Versailles it was detached from Germany and placed under the administration of the League of Nations, its coal mines being transferred to France. It voted in Jan., 1935, for reunion with Germany.

Part of the French zone of occupation after World War II, it now has, under agreements with France, legislative, executive and judicial autonomy, subject to the reserved powers of France in foreign relations, defense, and the maintenance of the economic, monetary and customs union between it and France. Under its constitution it has a popularly elected diet of 50 members, to which the cabinet headed by the premier is responsible. There is no head of state as such.

Coal reserves are conservatively estimated at 9,000,000,000 metric tons. Under an agreement concluded with France on Mar. 3, 1950, the mines are under French management with some Saar participation, an annual royalty being paid to the Saar by France. Production in 1951 included 16,280,000 metric tons of coal, 2,605,000 tons of raw steel and 2,365,000 tons of pig iron and ferroalloys.

Greece (Kingdom)

(Hellas)

Area: 51,182 square miles.*
Population (census 1951)*: 7,603,599 (1940, excluding the Dodecanese: Greek, 92.8%; Turkish, 3.8%; Macedonian, 1.3%; Spanish, 1%; others, 1.1%).
Density per square mile: 148.6.*
Sovereign: King Paul I.
Premier: Nicholas Plastiras.
Principal cities (census 1951, municipal areas only): Athens (Athenai) 559,250 (capital); Piræus (Pelralevs) 184,980 (port of Athens); (1940): Salonika (Thessalonike) 226,147 (seaport); Patras (Patral) 79,570 (seaport); Volos 54,919 (seaport).
Monetary unit: Drachma.
Languages: Greek, Turkish.
Religions: Greek Orthodox, 96%; Mohammedan, 2%; Jewish, 1.1%; others, .9%.
 * Including the Dodecanese.

HISTORY. Rugged, mountainous Greece—ancient cradle of one of the world's great civilizations—suffered cruelly in World War II and emerged as a land torn by civil war between its right and left political elements, while complete economic chaos reigned. World attention was focused on the little country (about the size of North Carolina) in 1946-49 as it became a center of political struggle between the Soviet Union and the bloc of western nations which opposed further Russian expansion.

Ancient Greece, with a recorded history going back to 776 a.e., reached the peak of its glory in the 5th century b.c., and by the middle of the 2nd century b.c., it had declined to the status of a Roman province. It remained within the Eastern Roman Empire until Constantinople fell to the Crusaders in 1204. In 1453, the Turks took Constantinople, and by 1460 Greece was a Turkish province. The insurrection made famous by the poet Lord Byron broke out in 1821, and in 1827 Greece was set up an independent nation, with sovereignty guaranteed by Britain, France and Russia. Prince Otto of Bavaria was recognized as king five years later, but he was ousted by a revolution in 1862. Prince William of Denmark, as George I, succeeded him.

Up to this time Greece consisted only of the Peloponnesus and the lower part of the peninsula north of the Gulf of Corinth. Britain gave Greece the Ionian Islands in 1864, and Thessaly was added in 1881. Greek success in the Balkan Wars of 1912-13 brought the addition of Macedonia, Epirus, Crete and many Aegean Islands. In World War I, Greece kept a precarious neutrality until June, 1917, when King Constantine (who had succeeded George I in 1913) was forced to abdicate in favor of his second son, Alexander. Greece then entered the war on the Allied side. By the Treaty of Sévres, Greece was awarded Thrace and part of Asia Minor. Turkey, however, drove the Greeks out of Smyrna in 1922.

Greece was proclaimed a republic on March 25, 1924, and there followed strife and dissension between Royalists and Republicans, although fair order was maintained during the premierships of Eleutherios Venizelos from 1928 to 1933.

In 1935, the people voted for the return of King George II, who had abdicated in 1924 after a short rule. In April, 1936, General John Metaxas became premier and by August he had abolished parliament and set up a dictatorship.

Greece was invaded by the Italians in 1940. By April, 1941, the Greeks not only had driven the Italians out of Greece but were well into Albania. The Germans came to Mussolini's rescue, invaded Greece from Bulgaria, and took Athens on April 27, 1941. Starvation and harsh persecution of

the Greeks were common during the Axis occupation. After liberation, Greece became a land of conflict with armed bands of Royalists and Communists terrorizing the nation. The government, which had fled the country, returned in Oct., 1944, following Greece's liberation by British forces. In less than two months, all the EAM (National Liberation Front) ministers, decided leftists, resigned from the government, setting up a crisis which brought on months of fighting between British troops and leftist resistance forces.

Peace was not restored until Feb. 12, 1945. Three short-lived premierships followed until the elections of March 31, 1946, gave a majority of Assembly seats to the Populist (Royalist) party. Its leader, Constantine Tsaldaris, became premier on April 18, 1946. However, all the leftist groups boycotted the March elections, and the depredations of armed bands of Communists and Royalists continued.

The country approved the return of George II by a large majority in a plebiscite held Sept. 1, 1946. The king returned on Sept. 28 but died April 1, 1947, and was succeeded by his brother Paul I.

An important postwar development in troubled Greece has been the extension of U. S. financial and technical assistance, supervised by a U. S. mission. In May, 1947, the U. S. appropriated \$300,000,000 for Greek aid.

U. S. supplies enabled Greek forces to make good progress against the Communist guerrillas, and the cessation of hostilities was announced on Oct. 16, 1949.

U. S. aid has also had a stabilizing effect on perennially unstable Greek politics. Tsaldaris' right-wing cabinet yielded in Jan., 1947, to a coalition headed by Demetrios Maximos. On Sept. 7, with U. S. approval, Themistocles Sophoulis, veteran Liberal leader, took over at the head of a Liberal-Populist cabinet with Tsaldaris as deputy premier. The aged Sophoulis survived several Cabinet crises but died June 24, 1949. He was succeeded by Alexander Diomedes, who kept the coalition cabinet with several minor changes. Elections held Mar. 5, 1950, resulted in a centrist victory; in deference to U. S. insistence upon a strong government, Nicholas Plastiras was named premier on Apr. 14 at the head of a cabinet commanding a majority in parliament. However, he gave way to an all-Liberal cabinet, formed by Sophocles Venizelos on Aug. 21 and broadened to include Social Democrats and Populists on Sept. 13. Following the elections of Sept. 9, 1951, Venizelos continued in office but yielded on Oct. 27 to Plastiras.

GOVERNMENT AND DEFENSE. Greece is a constitutional hereditary monarchy. Nominal executive power is vested in the king, but the government is administered by a

Council of Ministers, headed by the premier, which must enjoy the Assembly's confidence. Under the terms of the 1947 U. S. loan, U. S. officials are advising various departments of the government, which is noted for its inefficiency.

The sovereign, Paul I, was born Dec. 14, 1901, and was married Jan. 9, 1938, to Princess Frederika Louise of Brunswick. They have one son, Prince Constantine, born June 2, 1940 (the heir apparent), and two daughters.

Military service is compulsory. U. S. aid in 1948 made possible an increase in army strength from 120,000 to 132,000; the National Guard was also increased from 30,000 to 50,000. Greek forces, which were advised by a U. S. military mission, were demobilized to some extent following the cessation of hostilities with the guerrillas in Oct., 1949. An infantry unit of 1,000 men and several aircraft were dispatched to Korea. In Dec. 1951, the navy had one cruiser, 3 fleet destroyers, 6 submarines and 19 frigates and escort craft.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory for all children between the ages of 7 and 12. Illiteracy was estimated at 38 per cent in 1940. In 1948-49, there were 9,986 elementary schools, with 1,218,000 pupils; 507 secondary schools, with 169,836 pupils; and 2 universities (Athens and Salonika), with 13,337 students.

About three-quarters of the population engages in agricultural pursuits, although only one-fifth of the land is arable. Most of the cultivated area is devoted to cereals: wheat (1951: 930,000 metric tons), barley (230,000 tons) and maize (220,000 tons). There are also olive trees, vines, tobacco (1950: 55,000 metric tons) and currants. Olive oil production in 1951 was about 160,000 tons. The principal fruits are oranges, lemons, figs, mandarins, apples and pears. At the beginning of 1951, there were 6,844,000 sheep, 700,000 cattle and 550,000 hogs. Wool production in 1950 was 8,800 short tons.

Development of large-scale Greek manufacturing is blocked by lack of coal resources and of capital. The most valuable products are textiles, chemicals and food items. Among other processed or manufactured products are olive oil, wine, spirits, flour, carpets, leather, cigarettes and building materials. Postwar industrial rehabilitation has proceeded slowly, hampered by war damage and subsequent internal strife.

Postwar trade has been financed largely by U. S. aid. Recent figures are as follows (in millions of U. S. dollars):

	1949	1950	1951
Exports	115	91	100
Imports	484	430	435

Chief exports in 1951 were tobacco (40%) and currants and raisins (20%). Leading customers were Germany (20%), Britain (15%) and the U. S. (14%); leading suppliers, the U. S. (30%), Britain (15%) and Germany (9%).

The large prewar merchant marine, comprising 589 ships of 1,812,723 tons and 710 sailing vessels of 55,417 tons, played a vital part in the national economy. World War II shipping losses amounted to 1,178,000 tons; the merchant marine on June 30, 1951, totaled 373 ships (100 tons and over) aggregating 1,277,008 gross tons, according to *Lloyd's Register*.

Railway mileage in 1949 totaled 1,615; highway mileage in Dec., 1949, 10,378, about 60 per cent of which was in poor condition. Reconstruction of the transport system, financed by U. S. aid, was completed in 1949; it included extensive work on highways, port and dry-dock facilities, railways and bridges.

Postwar inflation has been severe and is still unchecked. The budget for the fiscal year 1951-52 estimated revenue at 5,879,-000,000,000 drachmas and expenditure at 7,459,000,000,000 drachmas. Actual revenue in 1950-51 was 4,631,000,000,000 drachmas; expenditure, 6,192,000,000,000 drachmas.

Greek minerals are varied but are exploited only moderately. Principal ones are lignite, iron ore, iron pyrites, magnesite, chromite, lead, bauxite, molybdenum, emery, marine salt and the country's famous marble. A fifth of the country is forested, largely with pine, fir and oak. Resin and turpentine are main forest products. The principal sea product is sponges.

TOPOGRAPHY AND CLIMATE. North central Greece, Epirus and western Macedonia, all are mountainous. The main chain of the Pindus Mountains rises to 9,000 feet in places, separating Epirus from the plains of Thessaly. Greek Thrace is mostly a low-land region separated from European Turkey by the lower Maritsa River. The area of the mainland is 41,328 square miles. Among the many islands are the Ionian group off the west coast, 742 square miles in area; the Cyclades group to the south-east, 996 square miles; other islands in the eastern Aegean, including Lesbos, Samos and Khios, 1,486 square miles; and Crete, the fourth largest Mediterranean island, 3,199 square miles. Crete, largely mountainous, is about 160 miles in length, with a width varying from 7 to 35 miles.

The Dodecanese (area 1,035 sq. mi.), a group of 13 islands in the Aegean Sea near the coast of Asia Minor, were ceded to Greece by the 1947 Italian peace treaty and formally transferred on March 7, 1948.

The Greek climate is varied but generally similar to that of other Mediterranean countries. The maritime regions have a temperate climate, with short winters and

little snow or frost. In the uplands the winters are long and severe. Precipitation is heaviest in the mountains. Mean temperature at Athens is about 53°, with maximum of 99° in July and minimum of 31.5° in January. The summer heat is moderated by sea breezes and cool northerly winds from the mountains.

Guatemala (Republic) (República de Guatemala)

Area: 45,452 square miles.

Population (census 1950): 2,787,000 (Indian, 60%; white, 5%; mixed and other, 35%).

Density per square mile: 61.3.

President: Jacobo Arbenz Guzmán.

Principal cities (census 1950): Guatemala City, 293,998 (capital); Quezaltenango, 36,209 (coffee, sugar); Cobán 29,242 (coffee); Zacapa, 24,033 (coffee, livestock).

Monetary unit: Quetzal.

Language: Spanish.

Religion: Roman Catholic.

HISTORY AND GOVERNMENT. Once the site of the ancient Mayan civilization, Guatemala was conquered by Spain in 1524 and for the next 300 years was the major center of Spanish government in Central America. Guatemala was one of the founders of the Central American Union in 1823, and in 1839 set itself up as a republic. From 1898 to 1920 the dictator, Manuel Estrada Cabrera, ran the country, and from 1931 to 1944, General Jorge Ubico Castañeda was the "strong man." In July, 1944, the National Assembly elected General Federico Ponce president, but he was overthrown in October, and in December Dr. Juan José Arévalo was elected as the head of a leftist regime which continued to press its reform program in the face of conservative resistance. He took office on March 15, 1945. Jacobo Arbenz Guzmán, administration candidate, won the Nov., 1950, elections and took office March 15, 1951.

The eastern border is the object of dispute with Great Britain; in Feb., 1948, two British cruisers were dispatched to British Honduras to meet threatened attacks by Guatemala.

The Constitution of 1945 provides that a president shall be elected every six years by direct popular vote and cannot succeed himself immediately. Legislative power is vested in a unicameral National Assembly whose members are popularly elected for four-year terms, half the members being elected every two years. Guatemala has an army of 22,000 and a small air force.

SOCIAL AND ECONOMIC CONDITIONS. Education, advanced under Ubico, is free and compulsory. In 1948, a total of 195,463 pupils attended the 3,626 primary schools, while 62 secondary schools had total enrollment of 9,000. The University of Gua-

temala is located in Guatemala City. Illiteracy was reported to be only 25% in 1950.

Most of the ruling class is drawn from the 5 per cent of the population that is white. Spanish is the official language, but at least eighteen Indian dialects are spoken. The Indians are the chief labor supply.

Agriculture engages 90 per cent of Guatemalans. Coffee accounts for a fifth of the cultivated land and a large part of the exports. Recent foreign-trade data are as follows (in millions of quetzales):

	1949	1950	1951
Exports	52.2	67.6	76.1
Imports	68.0	71.2	80.8

In 1951, the U. S. took 88% of the exports and supplied 68% of the imports. Chief exports in 1950 were coffee (78%) and bananas (11%). Imports included flour, petroleum products, drugs and textiles.

Guatemalan manufacturing is small and local. The country has 600 miles of public railway connecting the coasts, 280 miles of private railway and 4,800 miles of highways. Puerto Barrios, on the Atlantic side, is the main port of entry, and is linked by rail to the capital.

The national budget for 1951-52 provided for expenditure of \$59,000,000; the funded internal debt on Dec. 31, 1950, was \$12,780,300; external (June 30, 1949), \$747,551.

Guatemala has reserves of gold, silver, lead, tin, copper, mercury, coal, antimony, salt, chromite and sulfur, but many of these minerals exist in insufficient quantity to justify exploitation, and only lead and chromite are produced commercially.

The country's vast forests, mostly in the Petén region, yield chicle for chewing gum, cinchona bark, a small amount of rubber, and dyewoods and cabinet woods, such as cedar, mahogany and logwood. About 15,000,000 acres are in hardwoods and 3,000,000 acres in softwoods.

TOPOGRAPHY AND CLIMATE. Most of Guatemala is mountainous, with many volcanic peaks, including Tajumulco, 13,814 feet high and the loftiest in Central America. The northern part is the great plain of Petén, largely uncultivated, sparsely populated, and geographically part of the Yucatán peninsula. The narrow Pacific slope, well watered and fertile, is the most densely populated and the most productive part of Guatemala. The climate is hot and humid on the coasts, with heavy rainfall, but is temperate in the highlands. The rainy season lasts from May to October in the interior, and often until December on the coast. January is the coldest month and May the warmest.

Haiti (Republic)

(République d'Haïti)

Area: 10,748 square miles.

Population (census 1951): 3,111,973 (Negro, 95%; mulatto, 5%).

Density per square mile: 289.5.

President: Paul E. Magloire.

Principal cities (census 1950)*: Port-au-Prince, 142,840 (capital, chief port); Cap-Haïtien, 24,957 (seaport); Gonaïves, 13,534 (farming district); Les Cayes, 11,835 (seaport; coffee).

Monetary unit: Gourde.

Language: French.

Religion: Roman Catholic.

* Cities proper, excluding surrounding communes.

HISTORY. Haiti, the only Negro republic in the Western hemisphere, occupies the western third of the island of Hispaniola, which was discovered by Columbus in 1492. Its political past is stormy, and today it is the smallest and most thickly populated of the American republics, a nation beset by illiteracy and poverty.

After successive Spanish and French domination, Haiti became a kingdom in 1801 under Toussaint L'Ouverture, a Negro leader. He was later captured by the French and died in prison, but the kingdom lasted and declared its independence in 1804, becoming a republic in 1820. In 1822 Haiti took over all of Hispaniola, and carried on until 1843, when the eastern two-thirds of the island revolted and established the Dominican Republic. Today the island is the only one in the world containing two sovereign nations.

Decades filled with revolution, corruption and disease came to a bloody climax in 1911-15, when Haiti had seven presidents in four years. After the assassination of the last one, United States Marines moved in. By a 1916 treaty, the United States agreed to help administer the country until the Haitians proved themselves capable of orderly self-government. The last Marines left in 1934, but a U. S. fiscal expert continued to supervise customs until 1941. On January 11, 1946, President Elie Lescot was driven from the country by revolution, and a three-man military junta took over until the election of President Dumarsais Estimé on Aug. 16, 1946. He was ousted in 1950 and succeeded after new elections by Paul E. Magloire.

GOVERNMENT. Normally the president is elected for six years by two-thirds vote of the National Assembly. That body consists of a 37-member Chamber of Deputies, elected for four years by popular vote; and a 21-member Senate elected for six years. The Garde d'Haïti, about 5,000 strong, serves as army and police force.

SOCIAL AND ECONOMIC CONDITIONS. Most Haitians are descended from African slaves. Their illiteracy rate is estimated at 92 per cent. Although 1949 figures showed enrollment of 97,000 in primary and sec-

ondary schools, actual attendance is probably lower. A campaign against illiteracy under UNESCO auspices was initiated in 1947. The mulattoes—lightened by the blood of the early French settlers—dominate the political and social life of the nation. Many of them are Paris-educated. While the ruling classes speak pure French, most of the people speak the patois of Creole French, and many of them still practice the strange folk religion of voodoo.

Haiti is predominantly agricultural. Coffee, which makes up more than 30 per cent of Haitian exports, is the principal crop, followed by sisal, sugar cane, cotton, bananas and cacao. Coffee exports in 1950-51 amounted to 25,424 metric tons. Manufacturing is almost entirely for local consumption, but there are several sisal factories and sugar refineries.

Recent trade data are as follows (in millions of gourdes):

	1948-49	1949-50	1950-51
Exports	155.1	192.4	248.0
Imports	157.1	181.0	222.6

Leading exports in 1950-51 were coffee (52%), sisal (24%) and sugar (14%). Leading customers were the U. S. (59%), Belgium (18%) and Italy and the Netherlands (each 6%). The U. S. was the chief supplier (73%).

In 1951 Haiti had about 2,000 miles of improved road and 180 miles of railway. International air service is provided by PAA and KLM.

More than 75 per cent of Haitian revenue is derived from customs duties on exports and imports. The 1951-52 budget balanced at approximately \$24,896,000. The public debt on Feb. 28, 1952, was \$6,221,167, about 75 per cent internal.

Minerals, relatively unexploited, include gold, silver, iron, copper, antimony, tin, coal, nickel and gypsum. In 1943, a sizable bauxite deposit was found and signed over for U. S. development. Inland Haiti has forests of mahogany, pine, lignum vitae and other commercial woods. Output of the fisheries is insufficient for local needs.

TOPOGRAPHY AND CLIMATE. Haiti, about the size of Maryland, is two-thirds mountainous, with the rest marked by great valleys, extensive plateaus and small plains. The most densely populated and productive region is the Cul de Sac plain, near Port-au-Prince. Rivers are swift and generally not navigable. The climate is hot on the coast, temperate in the mountains, with hurricanes frequent in the May-to-October rainy season. Port-au-Prince has a mean annual temperature of 81°.

Honduras (Republic)

(República de Honduras)

Area: 59,145 square miles.

Population (census 1950): 1,533,625 (mestizo, 86%; Indian, 10%; Negro, 2%; white, 2%).

Density per square mile: 25.9.

President: Juan Manuel Gálvez.

Principal cities (est. 1949): Tegucigalpa, 62,263 (capital); San Pedro Sula, 24,425 (bananas, sugar); Comayagüela, 16,907 (twin city of Tegucigalpa); La Ceiba, 13,456 (seaport, bananas).

Monetary unit: Lempira.

Language: Spanish.

Religion: Roman Catholic.

HISTORY AND GOVERNMENT. Columbus discovered Honduras on his last voyage in 1502; it was a Spanish colony and part of Guatemala until 1821, the year of the general Central American revolt against Spain. Honduras declared its independence in 1838, and has been troubled by revolution and war ever since. American Marines intervened in 1903 and 1923. In 1931, 1932 and 1937, major revolutions were crushed by force. The Nicaraguan-Honduras boundary dispute of 1937 almost caused war, and in April, 1945, the country was invaded from Guatemala by a group of Honduran exiles, who were suppressed.

Legislative power is held by the unicameral Congress of Deputies, whose 49 members are popularly elected for six years. The president also is elected for six years and is not supposed to succeed himself, but Congress twice extended the term of President Tiburcio Carías Andino. His 16-year tenure ended Jan. 1, 1949, when Juan Manuel Gálvez, the administration candidate in the Oct., 1948, elections, took office.

Military service is compulsory. The army is estimated to be slightly under the 2,500 strength agreed upon by the Central American states.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and supposedly compulsory, but less than 25 per cent of the children go to school. The government is trying to reduce illiteracy, estimated at 82 per cent. In 1951, there were 2,061 primary schools with 106,438 students, 21 secondary schools with 1,107 students, and 38 normal and commercial schools with 4,132 students. The National University at Tegucigalpa had 796 students.

Most of the population is of mixed Spanish-Indian blood, but the ruling class is of nearly pure Spanish descent. Except among isolated Indian tribes, Spanish is the common language. Most of the Negroes are British subjects imported for plantation work.

Honduran economy depends upon bananas, which usually account for more than 50 per cent of the nation's exports.

Hashemite Kingdom of Jordan. See Jordan

The biggest plantations are along the northern coast. Exports in 1949-50 totaled 13,801,374 stems, more than 90 per cent produced by two U. S. companies. Other crops are corn, coffee, rice, henequen, tobacco and coconuts. Honduras also is an important source of sarsaparilla. Cattle raising and dairy farming flourish on rich pasture lands. Manufacturing is small and local.

Recent foreign trade data are as follows (in millions of lempiras):

	1948-49	1949-50	1950-51
Exports*	41.6	43.5	53.7
Imports	68.0	68.3	78.9

* Unadjusted for banana undervaluation.

In 1950-51, the U. S. took 73% of the exports (after adjustments for banana undervaluation totaling 101,400,000 lempiras) and supplied 73% of the imports. Leading exports were bananas (64%), coffee (8%) and silver (3%).

Honduras' railroads—920 miles—are almost entirely owned by fruit companies and used to transport bananas; they are confined to the northern coastal area. Since the country is mountainous and rugged, aviation has become an important means of travel. Despite its small size, the country has 63 landing fields. Highway mileage is estimated at 1,200 miles. Lake Yojoa and several rivers are navigable for small vessels.

The budget for the fiscal year 1951-52 was estimated at 28,904,130 lempiras. The internal debt was 8,281,549 lempiras on June 30, 1951; the external debt, 900,000.

In 1949 Honduras produced 16,102 troy ounces of gold and 3,421,206 troy ounces of silver; these are the two most important mineral products. Copper and iron exist in paying quantity but are undeveloped. The country is noted for rich forest resources, particularly the tropical hardwoods. In 1949-50, 2,279,036 bd. ft. of mahogany lumber and logs and 28,901,277 bd. ft. of pine were exported.

TOPOGRAPHY AND CLIMATE. Honduras, in the north central part of Central America, has a 400-mile Caribbean coast-line and a 40-mile Pacific frontage. Generally mountainous, it has fertile plateaus and river valleys and narrow coastal plains. The Bahia (Bay) Islands, off the north coast, produce large quantities of coconuts. Of numerous rivers on the northern slope of Honduras, the Ulua drains a third of the nation and is navigable for most of its course. The climate is oppressive in the coastal lowlands, pleasant in the interior highlands. At Tegucigalpa, maximum temperature is about 90° (in May), and minimum 50° (December).

Density per square mile: 259.5.

Chairman of Presidium: István Dobi.

Prime Minister: Matyas Rakosi.

Principal cities (census 1948*): Budapest, 1,058,288 (capital, Danube port); Szeged, 132,688 (textiles, wheat); Debrecen, 119,770 (livestock); Keszthely, 88,283 (horticulture); Pécs, 77,529 (farming).

Monetary unit: Forint.

Languages: Hungarian, German, Slovak.

Religions (est.): Roman Catholic, 64.9%; Greek Catholic, 2.3%; Helvetian Evangelical, 20.9%; Augsburg Evangelical, 6.1%; Jewish, 5.1%; others, .7%.

* Provisional figures.

HISTORY AND GOVERNMENT. Fascist-minded militarists and greed for more territory lined up Hungary with Germany and Italy just before World War II. The fruits of this alliance and the resultant defeat of Hungary were a smashed economy, wild inflation, poverty, Soviet occupation and a reparations debt of \$300,000,000. Politically the Soviet-supported Communist minority was thoroughly defeated by the conservative Small Landholders in the 1945 elections, yet it succeeded in taking over most of the key positions in the government. Controlling the police, the Communists waged a war of nerves against the Small Landholders, eventually forcing the resignation of Prime Minister Ferenc Nagy on May 30, 1947, and securing the appointment of a left-wing Small Landholder, Lajos Dinnyes, in his place. Then, shortly before the 1947 peace treaty became effective, a national election was carried out on Aug. 31, with the Communists replacing the Small Landholders as the dominant party. President Tildy resigned July 30, 1948, and on Aug. 3 leftist vice-premier Árpád Szakasits was elected. Dinnyes was replaced as prime minister on Dec. 10, 1948, by István Dobi, another left-wing Small Landholder. The arrest and conviction of Catholic Cardinal Mindszenty for alleged treasonable activities in Feb., 1949, brought worldwide criticism of the Communist regime.

Two thousand years ago Hungary was part of the Roman provinces of Pannonia and Dacia on the empire's borders. In A.D. 894 it was invaded by the Magyars, who founded a kingdom. Christianity was accepted during the reign of Stephen I (St. Stephen) from 997 to 1083. The peak of Hungary's great period of medieval power came in 1342-82 under King Louis the Great (Louis I) of Anjou, whose dominions touched the Baltic, Black and Mediterranean Seas. When the Turks smashed a Hungarian army in 1526, western and northern Hungary accepted Hapsburg rule to escape Turkish occupation. Transylvania became independent under Hungarian princes. Intermittent war with the Turks was waged thereafter for some years.

After the suppression of the 1848 revolt against Hapsburg rule led by Louis Kos-

Hungary (Republic)

Area: 35,893 square miles.
Population (est. 1950): 9,313,000
(Magyar, German, Slovak).

suth, the dual monarchy of Austria-Hungary was set up in 1867.

The dual monarchy was defeated with the other Central Powers in World War I, and the new Hungary underwent hard times. First there was a short-lived Socialist Republic in 1918. The chaotic Communist rule of 1919 under Béla Kun ended with the Rumanians occupying Budapest on Aug. 4, 1919. When the Rumanians left, Admiral Nicholas Horthy entered the capital with a national army. The Treaty of Trianon of June 4, 1920, cost Hungary 75 per cent of its land and more than 50 per cent of its population. Meanwhile, the National Assembly had restored the legal continuity of the old monarchy, and on March 1, 1920, Horthy was elected regent. Former King Charles made two unsuccessful efforts to return to the throne in 1921.

After 1920 Hungary was, in effect, ruled by its great land owners, but the turn came in 1932 with the accession of General Julius de Gömbös, a pro-Fascist, as prime minister. Under Gömbös and his successors, Kaloman Daranyi in 1936 and Béla Imrédy in 1938, co-operation with Italy and Germany was Hungary's guiding principle. Hungary signed the anti-Comintern pact on Jan. 13, 1939, and the Three Power Pact of Germany, Italy and Japan on Nov. 20, 1940. As inducement and reward for these actions, Hungary got part of Slovakia and all of Ruthenia from Czechoslovakia in 1938 and 1939; and northern Transylvania from Rumania in 1940.

Following the German invasion of Russia on June 22, 1941, Hungary joined the attack against the U.S.S.R., but the war was not popular and Hungarian troops were almost entirely withdrawn from the eastern front by May, 1943. The government of Nicholas von Kállay was overthrown March 19, 1944, and German occupation troops set up a puppet government after Admiral Horthy's appeal for an armistice with advancing Soviet troops had resulted in his overthrow on Oct. 16. The German regime soon fled the capital, however, and on Dec. 23 a provisional government was formed in Soviet-occupied eastern Hungary. On Jan. 20, 1945, it signed an armistice in Moscow.

On Feb. 1, 1946, the National Assembly approved a constitutional law abolishing the 1,000-year-old monarchy and establishing a republic. Up to that time, Admiral Horthy had been regent for a non-existent king.

The Soviet-type constitution adopted by Parliament on Aug. 18, 1949 declared Hungary to be a "people's republic." The supreme organ of state control was declared to be the Parliament, with deputies elected every 4 years by direct vote. When Parliament is not in session, power is exercised

by the presidium headed by a chairman. Executive power is vested in the cabinet headed by the premier.

Only the Communist-controlled, left-wing coalition was represented in the National Assembly after elections held May 15, 1949, in which only one slate of candidates was presented.

PEACE TREATY OF 1947. The final peace treaty which took effect Sept. 15, 1947, fixed Hungary's frontiers as they were on Feb. 1, 1938, except that a small bridgehead on the south bank of the Danube opposite Bratislava was ceded to Czechoslovakia. Hungary was to pay reparations of \$300,000,000 over a period of 8 years, \$200,000,000 to the Soviet Union and \$100,000,000 to Yugoslavia and Czechoslovakia. The treaty also provided freedom of navigation on the Danube for nationals of all states.

The strength of Hungarian armed forces was fixed by the treaty as follows: army, 65,000, including frontier, anti-aircraft artillery and river flotilla personnel; air force, 90 planes with a personnel of 5,000. Soviet troops are permitted to maintain communication through Hungary to Austria until a treaty with Austria takes effect.

SOCIAL AND ECONOMIC CONDITIONS. Education is state-controlled and is compulsory between the ages of 6 and 14. Parochial schools were nationalized in 1948. In 1950-51 there were 6,185 elementary and general schools, with 1,229,957 pupils, and 389 secondary schools, with 94,046 pupils. The 21 universities and colleges had 31,000 students.

Under laws passed in 1927-28, optional social insurance was placed under the control of the national social insurance institute, which offered medical, hospital, old age and disability insurance. Insurance for farmers was made obligatory. The Land Reform Act issued in March, 1945, provided for the confiscation of all estates over 1,500 acres; about 8,000,000 acres were divided among some 500,000 families. Collectivization of agriculture is now being emphasized.

Agriculture is the basis of Hungarian economic life, engaging more than half the population. Of the total area, 63.6 per cent can be cultivated and 17.9 per cent is meadowland and rough pasture. Cereals grown in the fertile Danubian plains are the chief crops. Leading crops in 1948 were wheat (1,583,314 metric tons), corn (2,861,709 tons), potatoes (2,116,881 tons), barley (691,719 tons), rye (785,696 tons) and sugar beets (1,771,000 tons). In addition, the cultivation of vines, fruit and garden produce is important; the famous Tokay wine is produced on the southern slopes of the Hegyalja in the northeast. Wine production averages 100,000,000 U. S.

gallons annually (1951: 97,200,000 U. S. gallons).

Horse-breeding is a traditionally important branch of agriculture. Hungarians have a great love for horses, and their excellent breeds were exported in large numbers before World War II. Livestock in 1949 included 600,000 horses, 1,870,000 cattle, 700,000 sheep and 3,250,000 hogs.

The dominant industries are all based on agriculture, with flour milling in first place, followed by sugar refining, brewing and canning. The second group of industries make hardware and machinery. Most of the machine industry is concentrated in Budapest and Győr. Cotton leads the textile industry, especially in Budapest, which is also a center of woollen manufactures. Hemp and flax weaving are important. In 1947 there were about 4,340 manufacturing plants with some 349,500 workers. About 90 per cent of industrial production was nationalized under laws enacted in 1946 and 1948. Legislation in the latter year affected about 500 mining and industrial enterprises employing more than 100 persons each. In addition, the Soviet Union has taken over all German-owned plants as reparations, and in 1946 Soviet-Hungarian companies were formed to exploit bauxite, petroleum, and air and river navigation.

Foreign trade figures for two years are as follows (in millions of forint):

	1947	1948
Exports*	1,042	1,933
Imports	1,453	1,975

* Excluding reparations shipments.

The chief customers in 1948 were Britain, 17 per cent; U.S.S.R., 17 per cent; Czechoslovakia, 13 per cent; and Austria, 7 per cent. The leading suppliers were U.S.S.R., 15 per cent; Yugoslavia, 15 per cent; Britain, 14 per cent; and Czechoslovakia, 13 per cent. Chief exports were grain, 15 per cent; textiles, 12 per cent; live animals and animal products, 11 per cent; and machinery, 9 per cent. Leading imports included coal, oil, iron and steel products, forest products, minerals and ores.

The focal point in the country's transportation system is the Danube River, navigable for 423 miles in Hungary. The nation's central location makes it the center of an important transit trade; its pre-war river fleet was the largest on the Danube. Railroad mileage in 1951 totaled 7,100; highway mileage in that year, 15,976. Transportation facilities suffered heavy damage in the last part of World War II.

The 1951 budget placed revenue at 29,623,000,000 forint and expenditure at 29,516,000,000 forint. The national debt (postwar only) on Dec. 31, 1946 totaled 1,630,000,000 forint.

While Hungary generally is mineral-poor, it has an estimated 250,000,000 tons of bauxite—about 25 per cent of the world's known reserves. Production in 1949 was estimated at 600,000 metric tons. The coal is of low quality and is insufficient to meet domestic needs; production in 1948 was 1,061,502 metric tons, and output of lignite was about 10,620,000 tons. Other minerals include iron ore, manganese and gold. Petroleum production in 1950 was about 4,200,000 barrels. Uranium is reported to exist in Hungary.

About 12 per cent of Hungary is forested, but the products are of little importance. There are valuable fisheries in Lake Balaton and on the Danube.

TOPOGRAPHY AND CLIMATE. Most of Hungary is a fertile, rolling plain lying east of the Danube, and drained by the Danube and the Tisza Rivers. In the extreme northwest is the Little Hungarian Plain. South of that area is Lake Balaton, 250 square miles, the largest lake of western and central Europe; to the west of it lies the Bakony Forest, part of an upland extension of the Alps, called the Hungarian Mittelgebirges. Entering Hungary in the northwest, the Danube flows south through the central plain. The Tisza, rising in the eastern Carpathians, also flows south through eastern Hungary.

Hungary's mean annual temperature ranges from 48° in the north to 52° in the south. Precipitation varies from 30 to 35 inches in the Bakony Forest to less than 15 inches in the east; most of the rain falls in May and June. High summer temperatures and a long autumn are favorable to agriculture.

Iceland (Republic) (Island)

Area: 39,709 square miles.*

Population (est. Dec. 31, 1951): 146,500 (almost entirely Icelandic).

Density per square mile: 3.7.

President: Asgeir Asgeirsson.

Prime Minister: Steingrímur Steinthorsson.

Principal city (est. 1951): Reykjavík, 57,200 (capital and only large town).

Monetary unit: Króna.

Languages: Icelandic, Danish.

Religion: Evangelical Lutheran.

* Including several off-shore islands.

HISTORY. Iceland, in the North Atlantic on the rim of the Arctic Circle, did not fight in World War II, but still it won and lost in the conflict. It won its complete independence from Denmark but lost its placid isolation when the United States and Great Britain moved in to prevent German seizure, and to establish air and naval bases. A new era then dawned for Iceland. Because of its strategic position on the great-circle air route between America and

Europe, about halfway between New York and Moscow, the country assumed new significance in an air-minded world.

Iceland was first settled shortly before 900, mainly by Norse. A constitution drawn up about 930 created a form of democracy and provided for an Althing, or General Assembly, now the oldest legislative body in the world. In 1262-64, Iceland came under Norwegian-Danish rule. Through five centuries of intermittent plague, earthquake, famine and volcanic eruption, the stout Icelanders endured, and in 1874 they obtained their own constitution. In 1918 Denmark recognized Iceland as a separate state with unlimited sovereignty, but still nominally under the Danish king. On June 17, 1944, after a popular referendum, the Althing proclaimed Iceland a completely independent republic.

The British occupied Iceland in 1940, immediately after the German invasion of Denmark. In 1942, the United States took over the burden of protection. Iceland refused to abandon its neutrality in World War II, and thus forfeited charter membership in the United Nations, but it was co-operative with the Allies throughout. Iceland joined the North Atlantic treaty organization in 1949, and in May, 1951, U. S. troops again landed at Iceland's request to aid in its defense preparations.

Asgeir Asgeirsson was elected president June 29, 1952, upon the death of Sveinn Björnsson, president since 1944.

GOVERNMENT. Constitutionally, the president is elected for four years by popular vote. Executive power of the state resides in the prime minister and his cabinet. The Althing is composed of two houses, one with 17 members and the other with 35; each has equal constitutional power.

Iceland has no army or navy.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy is virtually unknown in Iceland. Education is compulsory from 7 to 14, and mobile schools are sent traveling through the sparsely settled areas. When the University of Iceland, established in 1911, needed new buildings in 1935, the government licensed it to conduct a national lottery to raise the funds. The high number of scholarships and the low tuition fees make higher education virtually free to any qualified applicant.

Iceland publishes more books, newspapers and magazines per capita than any country in the world. Its language, Icelandic, has no dialects and has changed little through the centuries. In addition, Danish is widely understood and spoken. The Evangelical Lutheran Church is state-supported, but there is complete religious freedom. A social insurance system set up in 1935 and extended in 1946 provides accident, sickness and old age benefits, as well as hospital and medical care.

Approximately six-sevenths of Iceland is unproductive, and only one-fourth of one per cent is under cultivation. With about 30 per cent of the population engaged in farming, sheep raising is the most important branch of this industry. Hay, potatoes and turnips are the principal crops.

About one-sixth of the people are engaged in fishing, and fish and fish products make up the bulk of Iceland's exports. The annual catch averages 350,000 tons (1951: 370,655 tons). British, French and Norwegian fishing craft visit Iceland's fisheries, which lead the world in cod and are important for herring, plaice and halibut.

Recent trade data are as follows (in millions of krónur):

	1949	1950	1951
Exports	289	422	727
Imports	424	543	922

Fish and fish products accounted for 93% of the exports in 1951. Leading customers were Britain (23%), the U. S. (18%) and the Netherlands (12%); leading suppliers, Britain (29%) and the U. S. (13%).

Iceland has no railways. Highways total about 3,700 miles. In 1951 the merchant marine totaled 560 vessels (12 tons and over), aggregating 99,453 gross tons.

Expenditure for the calendar year 1952 was estimated at 379,473,000 kr.; revenue, at 382,138,000 kr. The national debt was 356,097,000 kr. on Dec. 31, 1950.

TOPOGRAPHY AND CLIMATE. Iceland, a bleak, volcanic island about the size of Kentucky, has maximum dimensions of 298 by 194 miles; it is mostly tableland, high, rugged and barren. It is one of the world's most volcanic regions. Mt. Hekla (4,747 ft.), near the southern coast, is the most notable of its volcanoes, many of which are still active and cause frequent earthquakes. Small fresh-water lakes are found throughout the island, and there are many natural oddities including hot springs, geysers, sulfur beds, canyons, waterfalls and swift rivers. More than 13 per cent of the area is covered by snowfields and glaciers, and most of the people live in the 7 per cent of the island comprising fertile coastlands. One-third of the much-indented, 3,730-mile coastline belongs to a peninsula to the northwest, joined to the mainland by an isthmus four miles wide. Vegetation is of the Arctic type, mostly stunted. Except for peat and fisheries, Iceland has no natural resources.

The Gulf Stream modifies Iceland's climate to make it much like that of southern Canada, though with longer winters and shorter summers. The mean annual temperature at Reykjavik is 39.4°, with January the coldest month (34.2°) and July the warmest (51.6°).

Iran (Kingdom)

Area: 634,413 square miles.
 Population (est. 1951)*: 20,000,000 (Iranian, Kurdish, Azerbaijani).
 Density per square mile: 31.5.
 Ruler: Mohammed Riza Pahlavi.
 Prime Minister: Mohammed Mossadegh.
 Principal cities (est. 1948): Teheran, 850,000 (capital); Meshed, 250,000 (Moslem shrine); Tabriz, 214,000 (capital, Azerbaijani); Isfahan, 205,000 (cotton, tobacco); Abadan, 150,000 (petroleum).
 Monetary unit: Rial.
 Languages: Iranian (Persian), Kurdish, Azerbaijani.
 Religions: Moslem (Shiah), about 90%; Moslem (Sunni), about 5%; Armenian; Jewish; Nestorian; Parsi.

* U.N. estimate; no census ever taken.

HISTORY. Oil-rich Iran, roughly one-fifth the size of the United States, was called Persia before 1935. Its key location blocks the lower land gate to Asia, and also stands in the way of traditional Russian ambitions for access to the Indian Ocean. In modern times, Iran has drawn Big Power interest because of its rich oil deposits.

Iran's history is a long one of rising and falling dynasties. After periods of Assyrian, Median and Achaemenidian rule, Persia became a powerful empire under Cyrus the Great, reaching from the Indus to the Nile at its zenith in 525 B.C. It fell to Alexander in 331-30 B.C., to the Selucidae in 312-02 B.C., and to the Parthians about 130 B.C. A native Persian regime arose about A.D. 224, was weakened fighting the Turks, and fell to the Arabs in 637. In the 12th century the Mongols took their turn ruling Persia, and in the early 18th century the Turks and Russians occupied it. In modern times, Russia, Turkey, Britain, France, and, most recently, the United States, all have taken keen competitive interest in Iran.

An Anglo-Russian convention of 1907 divided Iran into two spheres of influence. British attempts to impose a protectorate over all of Iran were defeated in 1919. On Feb. 26, 1921, General Riza Pahlavi seized the government and was elected hereditary shah in 1925. Subsequently he did much to modernize the country, and abolished all foreign extraterritorial rights.

Increased pro-Axis activity led to Anglo-Russian occupation of Iran in August, 1941, and deposition of the shah in favor of his son, Mohammed Riza Pahlavi.

In November, 1945, a Soviet-inspired autonomist movement won control of Azerbaijan, Iran's northwest province. To protect their advantage, the Russians kept troops in that area past the treaty evacuation date of March 2, 1946. The Iranians promptly protested this breach of agreement to the United Nations. The Russians evacuated their troops on May 6 but not before they had forced Iran to promise them oil concessions in the north.

Elections held in Jan., 1947, were won by the Government party of Ghavam-es-Saltaneh, who resigned Dec. 28, 1947, following a sharp Soviet protest against rejection of the oil pact by parliament. Subsequent cabinets were weak and inefficient. Lt. Gen. Ali Razmara took office June 26, 1950, and pledged to restore efficient and honest government, but he was assassinated Mar. 7, 1951. Mohammed Mossadegh took over April 29. The next day, parliament completed action on a bill nationalizing the oil industry. The action was taken over strong British protests, but Britain evacuated the oil refineries Oct. 3, 1951.

GOVERNMENT AND DEFENSE. Iran is a constitutional monarchy, and the shah has the usual powers of the head of a parliamentary state. Executive power is exercised by a cabinet headed by the prime minister, who is appointed by the shah and is responsible to the Majlis (parliament), the lower house of which has 136 popularly-elected members.

In May, 1949, the constitution was amended to permit the shah to dissolve the Majlis; at the same time legislation was enacted to set up an upper house or Senate provided by the 1906 constitution but never established.

Military service is compulsory; the initial training period is 2 years. The army, modernized and reorganized by Riza Pahlavi, father of the present shah, consists of about 130,000 men. The air force has several hundred planes, and the navy several small craft in the Persian Gulf. There is also a U. S.-trained police force of 20,000.

SOCIAL AND ECONOMIC CONDITIONS. Education has made good progress in the last 25 years, supplanting the old and essentially religious system. In 1942-43 (latest data available in 1952) there were 2,401 elementary schools, with attendance of 244,315. There are universities at Teheran and Tabriz. Illiteracy is high, though decreasing.

Iran is predominantly agricultural. Large estates are numerous, and irrigation is common, especially on the central plateau. The principal crops are wheat (est. 1951: 1,800,000 tons) and barley (740,000 tons). Rice production, confined largely to the Caspian provinces, was estimated at 360,000 tons in 1951.

Other crops include grapes, dates, apricots, tobacco, tea, cotton, sugar beets and corn. There are extensive grazing lands. Wool production in 1950 was estimated at 16,000 tons; in 1951, there were an estimated 18,000,000 sheep.

Iran must still import many manufactured necessities, but several new factories were established by the government after 1925 including sugar plants, rice and oil

mills, textile factories, a cement factory, copper smelter, glycerine factory and small arms factory. The Chalus silk mill produces 1,000,000 yards or more a year. Both sugar and tobacco are government monopolies. The manufacture of carpets, for which Iran is famous, is a valuable industry.

Foreign-trade data (trade years beginning March 21) are as follows, in billions of rials:

	1948-49	1949-50	1950-51
Exports	19.01	17.17	26.40
Imports	5.48	9.32	6.98

The chief exports in 1950-51 were petroleum and products (90%), rugs and carpets (2%) and fruits and berries (2%). Leading customers were Britain (26%), India (8%) and South Africa and France (each 5%). Chief suppliers were Britain (29%), the U.S.S.R. (26%) and India (10%).

Motorable roads in 1949 totaled some 17,000 miles, about one-fifth asphalted. Railway mileage open to traffic was 1,748 (1948). The principal line (870 mi.) connects Bandar Shahpur on the Persian Gulf with Bandar Shah on the Caspian Sea. It carried 5,000,000 tons of supplies to Russia during World War II. Iranian State Airlines and other lines provide service.

The budget for 1951-52 forecast revenue of 9,552,846,499 rials and expenditure of 9,549,595,000 rials. The internal debt in Dec. 1949, was 5,668,000,000 rials. Income from various monopolies and oil royalties are important.

Considerable mineral wealth exists, but only oil is exploited commercially. The principal field, near Shushar in the southwest, was worked until 1951 by the Anglo-Iranian Oil Company. The latter's concession began in 1901 and was to run until 1993, but its properties were nationalized by the Iranian government in April, 1951. Production in 1950 was 31,750,000 long tons (about 240,000,000 barrels). The refinery at Abadan processed 24,855,171 tons. Production in the latter half of 1951 and in 1952 was only a small fraction of normal.

The main forest belt on the northern Elburz slope supplies railroad ties, charcoal and firewood. Gums are the most valuable forest product. Fisheries are worked in the Persian Gulf and the Caspian Sea. **TOPOGRAPHY AND CLIMATE.** Iran is, in general, a plateau averaging 4,000 feet elevation. In addition, there are maritime lowlands along the Persian Gulf and the Caspian Sea. The Elburz Mountains in the north rise to 18,603 feet at Mt. Demavend. From northwest to southeast, the country is crossed by a desert 800 miles long and 100 to 200 miles wide. Iran's only navigable river is the Karun in the southwest.

The central plateau is hot in summer

and very cold in winter, but the Caspian area has a sub-tropical climate. Mean temperatures vary at Teheran from 35° in January to 85° in July (yearly average 62°); at Bushire, on the Persian Gulf, from 58° in January to 90° in July and August (average 75°). Rainfall is light.

Iraq (Kingdom)

Area: 116,600 square miles.*
Population (est. 1950): 5,100,000 (Arab, 75%; Kurdish, 15%; Iranian, 3.75%; others, 6.25%).

Density per square mile: 43.7.

Ruler: King Faisal II.

Regent: Crown Prince Abdul-Ilah.

Prime Minister: Nuri as-Said.

Principal cities (est. 1946): Baghdad, 832,927 (capital); Mosul, 279,361 (farming, oil); Basra, 181,814 (chief port).

Monetary unit: Dinar.

Languages: Arabic, Kurdish.

Religions: Moslem (Shiah), 53%; Moslem (Sunni), 35%; Christian, 2.8%; Jewish, 2.5%; others, 6.7%.

* Excluding southern and western desert areas.

HISTORY. Iraq, a triangle of mountains, desert and fertile river valley less than half the size of Texas, is bounded east by Iran, north by Turkey, west by Syria and Jordan, and south by Saudi Arabia. From earliest times it has been known as Mesopotamia—the land between the rivers—for it embraces a large part of the alluvial plains of the Tigris and Euphrates.

An advanced civilization existed in Mesopotamia by 4000 B.C. Sometime after 2000 B.C. it became the center of the ancient Babylonian and Assyrian empires. It was conquered by Cyrus the Great of Persia in 538 B.C., and by Alexander in 331 B.C. After an Arab conquest in A.D. 637-40, Baghdad became capital of the ruling caliphate. The country was cruelly pillaged by the Mongols in 1258, and during the 16th, 17th and 18th centuries was the object of repeated Turkish-Persian competition.

Nominal Turkish suzerainty imposed in 1638 was replaced by direct Turkish rule in 1831. In World War I an Anglo-Indian force occupied most of the country, and Britain was given a mandate over the area in 1920. The British recognized Iraq as a kingdom in 1922 and terminated the mandate in 1932, when Iraq was admitted to the League of Nations. In World War II, Iraq generally adhered to its 1930 treaty of alliance with Britain, but in 1941 British troops were compelled to put down a pro-Axis revolt led by Prime Minister Rashid Ali. Iraq became a charter member of the Arab League in March, 1945 and Iraqi troops took part in the Arab invasion of Palestine in May, 1948.

King Faisal II, born on May 2, 1935, succeeded his father, Ghazi I, who was killed in an automobile accident on April 4, 1939. The king's uncle, Abdul-Ilah, is regent.

GOVERNMENT AND DEFENSE. Under the 1924-25 constitution, Iraq is a hereditary monarchy with a two-house Parliament. The Senate is named by the king for a term of eight years; the 115-member Chamber of Deputies is elected popularly for four years. Executive power is vested in a Council of Ministers, headed by the prime minister, whom the king appoints.

Military service is compulsory, with an initial training period of 1½ to 2 years. The British-trained police number about 21,000. The 1930 treaty gives Britain the provisional right to keep troops in Iraq.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is free and nominally compulsory. Secondary education is neither free nor compulsory. There are no universities. In 1949-50 there were 1,070 state elementary schools with 169,868 pupils, and 108 intermediate and secondary schools with 19,350 pupils. Fourteen colleges had a combined enrollment of 5,200.

The chief economic activity is agriculture, dependent upon irrigation and confined to the valleys of the Tigris and Euphrates. Iraq supplies about 80 per cent of the world's dates (1949: 120,000 metric tons). Chief among the cereal products of Iraq are barley (1950: 900,000 metric tons), wheat (600,000 tons), rice, sorghum, maize, and millet. Many fruits and some tobacco and cotton are grown. Grazing is the principal occupation of the many nomadic and seminomadic tribes. Livestock estimates in 1949 included 822,000 cattle, 7,000,000 sheep, 2,000,000 goats and 291,000 camels. Wool production in 1950 was 13,000 metric tons.

Industry is still embryonic. Of approximately 100 manufacturing firms, the most important are those making brick, tile, woolen textiles, vegetable oils, soap, glass and cigarettes.

Recent foreign-trade data are as follows (in millions of dinars):

	1949	1950	1951
Exports	26.5*	45.1*	59.3*
Imports	40.5	37.6	51.0

* Adjusted to include estimated value of crude petroleum exports.

Chief exports in 1951 were petroleum (51%), barley (21%) and dates (9%). Leading customers in 1949 were France (25%), Britain (14%) and Syria and Lebanon (10%); leading suppliers, Britain (43%) and Japan (11%).

The only port for seagoing vessels is that of Basra, located on the Shatt al-'Arab River near the head of the Persian Gulf. River vessels plying the Tigris between Basra and Baghdad have tonnage of more than 60,000. There are about 4,000 miles of improved and unimproved roads. Iraq State Railways, the only rail line, operates three lines totaling 1,555 miles. There is an airport and seaplane base at Basra.

Oil production centers at the Baba Gur-gur fields near Kirkuk are operated on behalf of an international group by the British-managed Iraq Petroleum Company (production 1951: 7,987,024 long tons).

Oil is piped to Haifa in Palestine and Tripoli in Lebanon. Another field is operated by the Kanaqin Oil Company (Anglo-Iranian Oil Company subsidiary), and produces only for local consumption (production 1951: 437,000 long tons). A third field, owned by an Iraq Petroleum Company subsidiary, was opened at Zubair near Basra in Jan. 1952.

The 1951-52 budget amounted to 28,800,000 dinars. The capital works budget, based on oil royalties, usually balances the ordinary budget. There is no external debt.

TOPOGRAPHY AND CLIMATE. Iraq has arid desertland west of the Euphrates, a broad central valley between the Euphrates and Tigris, and mountains in the north-east. The fertile lower valley is formed by the delta of the two rivers, which join about 120 miles from the head of the Persian Gulf. The gulf coast line is 26 miles.

Iraq's climate, generally, runs to great extremes—long hot summers and short cold winters. The area on the Persian Gulf is one of the hottest places in the world. Average temperature at Baghdad is 49° in January and 92° in July and August.

Ireland (Republic)

Area: 26,601 square miles (not including larger water bodies).

Population (census 1951*): 2,958,878 (almost entirely Irish).

Density per square mile: 111.2.

President: Séan T. O'Kelly.

Prime Minister: Eamon de Valera.

Principal cities (census 1951*): Dublin (Baile Átha Cliath), 521,322 (capital); Cork, 74,577 (seaport); Limerick (Luimneach), 50,323 (seaport); Kingstown (Dun Laoghaire), 47,963 (seaport).

Monetary unit: Irish pound.

Languages: Gaelic, English.

Religions (census 1946): Roman Catholic, 94.3%; Protestant Episcopal, 4.2%; Presbyterian, .8%; others, .7%.

* Provisional figures.

HISTORY. The young Republic of Ireland—formerly Eire, and before that the Irish Free State—is an agrarian state that occupies five-sixths of the island of Ireland west of England, across the Irish Sea.

About the beginning of the Christian era, Ireland was divided into five kingdoms—Ulster, North Leinster, South Leinster, Munster and Connaught—each with its own ruler, but each subject to the overlord of all Ireland who dwelt at Tara. St. Patrick introduced Christianity in A.D. 432 and became the country's patron saint.

Norse depredations along the coasts, starting in 795, ended in 1014 with Norse

defeat at the Battle of Clontarf by forces under Brian. In the middle of the 12th century, the Pope gave all Ireland to the English crown as a papal fief. In 1171 Henry II of England was acknowledged "Lord of Ireland," but native sectional rule continued for centuries, and English control over the whole island was not reasonably absolute until the 17th century. By the Act of Union (1800), England and Ireland became the "United Kingdom of Great Britain and Ireland."

The great potato famine of 1846-48 took many lives and drove millions to emigrate to America.

Several home-rule bills were introduced in the English Parliament in the 19th century, but failed of passage. One was finally approved in 1914, but enforcement was suspended by the outbreak of World War I. During the war, agitation for freedom was carried on by the nationalist party—Sinn Féin (Ourselves). In 1916 the British quickly suppressed the famous Easter Week rebellion and executed its leaders.

After the 1918 elections, seventy-three of the Sinn Féiners elected to the English Parliament met in Dublin, proclaimed themselves an Irish Parliament, and passed a declaration of independence. The result was war between Irish nationalists and British troops from January, 1919, to May, 1921. A treaty ratified in December, 1921, gave Ireland political status equal to that of Canada. Six Ulster counties, largely Protestant, formed a separate government as Northern Ireland, closely bound to England; the other twenty-six became the Irish Free State. Republican extremists, headed by Éamon de Valera, refused for several years to recognize the treaty.

William Cosgrave, leader of the Sinn Féin's right wing, was president from 1922 to 1932. In the latter year, De Valera's party, Fianna Fáil, won control of the government. Under De Valera's leadership a new constitution was adopted in 1937 making the nation, in effect, a republic. The country's former name of "Eire" was restored by the constitution.

Dr. Douglas Hyde, elected without opposition as Eire's first president in 1938, was succeeded in 1945 by Séan T. O'Kelly, the Fianna Fáil nominee. The country maintained strict neutrality during World War II.

De Valera's long tenure as prime minister came to an end in Feb., 1948, when the Fianna Fáil lost its absolute majority in the parliamentary elections. John A. Costello, a Fine Gael moderate, took office at the head of a six-party coalition cabinet on Feb. 18, 1948, but De Valera returned to power on June 13, 1951, after new elections.

The nation severed its last ties with the British Crown at midnight April 17, 1949, and officially proclaimed itself the Republic of Ireland on the next day—Easter Monday.

GOVERNMENT AND DEFENSE. Ireland is a sovereign, independent republic. The president, directly elected for seven years, names the prime minister on the nomination of the Chamber of Deputies. Parliament (Oireachtas) has two houses. The Chamber of Deputies (Dáil Éireann) has 147 members elected by proportional representation for a five-year term. The Senate (Seanad Éireann) has 60 members, of whom 11 are named by the prime minister, 6 by the universities, and 43 from vocational panels; its powers are limited.

Party representation in the Dáil Éireann after the elections of May 30, 1951, was as follows: Fianna Fáil, 69; Fine Gael, 40; Labour, 16; Farmers, 6; Clann Na Poblachta, 2; independents, 14.

Military service is voluntary. The army has a permanent authorized strength of 12,500. In 1938 Britain gave up its last defense posts in Eire, including those at Cobh, Berehaven and Lough Swilly.

SOCIAL AND ECONOMIC CONDITIONS. Elementary education is free and is provided in state schools; secondary education is under private control, notably the religious orders. Technical and agricultural education is under local control, aided by state subsidies. The 4,896 elementary schools had 445,183 pupils in 1949-50; 416 secondary schools had 47,065 students. The University of Dublin (Trinity College), founded in 1691, had an enrollment of 2,442 in 1949-50, and the National University of Ireland (constituent colleges at Cork, Galway and Dublin) had 5,006.

The majority of the people are English-speaking, although the government has attempted to promote the traditional Gaelic language, which is an essential part of the curriculum for all state schools.

Ireland is predominantly an agricultural country, with about 70 per cent of the total land area (17,000,000 acres) devoted to crops and pasture. The pastoral industry is the basis of the nation's economy, but recent years have brought a greater diversity in agriculture, marked by large increases in sugar beet and wheat production. Principal crops in 1951 were wheat, 247,800 long tons; rye, 3,000 tons; oats, 576,500 tons; potatoes, 2,765,800 tons; sugar beets, 574,900 tons; and flax, 2,200 tons. Other staple crops are turnips, cabbage and hay. Livestock in June 1951 included 4,381,300 cattle, 2,701,800 sheep and 547,900 hogs. Wool output in 1950 was 6,000 metric tons; butter output, 37,400 tons.

The government's self-sufficiency policy, plus financial and tariff inducements, have

promoted considerable industrial development since 1928. The leading manufactures, in order of value, are ordinarily beverages, tobacco, wood, paper, clothing, textiles and metals. The hydroelectric plant erected on the Shannon River in County Limerick provides cheap electricity for homes and factories.

Trade statistics are as follows (in millions of Irish pounds):

	1949	1950	1951
Exports	60.6	72.4	81.4
Imports	130.2	159.6	204.5

The leading customer in 1951 was Great Britain (70%), followed by Northern Ireland (13%) and the U. S. (4%). Britain was also the chief supplier (45%), followed by the U. S. (13%) and Canada (4%). Major exports in 1951 were cattle and horses (36%), meat, fish and dairy products (23%), textiles (8%) and ale (6%). Major imports were machinery and vehicles, textiles, wheat, coal, corn, and iron and steel and manufactures.

The merchant marine in 1948 had 448 vessels with a net tonnage of 46,161. Almost all transport facilities are nationalized. Railway mileage is about 2,500. Main roads in 1950 totaled 49,200. Shannon is rapidly developing into a key international airport. There are 670 miles of canals and navigable waterways.

The 1952-53 budget balanced revenue

and expenditure at £97,761,000. The public debt on Mar. 31, 1952, was £213,610,000; assets were £128,590,000.

In 1950, Ireland mined 198,000 short tons of coal, some gypsum, and considerable peat from its bogs, but otherwise the mineral resources are negligible, as are those of the forests. The fishing industry employs about 10,000 men. The 1951 catch, including mackerel, herring, whiting, cod, plaice and shellfish, was valued at £430,137.

TOPOGRAPHY AND CLIMATE. Occupying the entire island except for the six northern counties of Ulster, Ireland resembles a basin—a central plain rimmed with mountains, except in the Dublin region. The mountains are low, with the highest peak, Carruntuohill in Kerry County, rising 3,415 feet. The principal river is the Shannon, which begins in the north central area, flows south and southwest for about 240 miles and empties into the Atlantic. About 20 per cent of the country is covered by bogs. Among the many lakes are the famous Lakes of Killarney in the southwestern county of Kerry.

A moist and mild climate, with annual rainfall running between thirty and forty inches fairly evenly distributed throughout the year, is influenced by the Gulf Stream, which makes the winters warmer than in other places in the same latitude. The mean temperature at Dublin is 41.7° in January and 60.5° in July.

Israel (Republic)

Area: 8,084 square miles.

Population (est. Apr. 30, 1952): 1,603,000 (90% Jewish).

Density per square mile: 198.2.

President: Dr. Chaim Weizmann.

Premier: David Ben-Gurion.

Principal cities (est. Dec. 1951): Jaffa-Tel Aviv 345,500 (industrial center); Haifa, 147,000 (chief port); Jerusalem (Israeli), 137,500 (capital).

Monetary unit: Israeli pound (£I).

HISTORY. The history of Palestine, cradle of two of the great religions of the world, and homeland of the modern state of Israel, is mostly a chronicle of invasion, conquest and confusing divisions. To the ancient Hebrews it was known as the "Land of Canaan"; the name Palestine is derived from that part of the country inhabited by the Philistines of Biblical times. About 1000 B.C. the Hebrews succeeded in establishing a single monarchy, which later split up into two kingdoms—Judah and Israel. The country was subsequently invaded and overcome by many peoples, including the Assyrians, Babylonians, Egyptians, Persians, Macedonians, Romans and Byzantines. In A.D. 634-36, Palestine was wrested from the Byzantine Empire by the

Arabs. Frankish Crusaders captured Jerusalem in 1099 and set up a feudal kingdom which endured until the defeat of the Franks by Saladin (1187) and the restoration of Moslem rule. In 1516 suzerainty over the area was transferred from the Mamelukes of Egypt to the Turks. It remained part of the Ottoman Empire until World War I, when British forces under General Allenby defeated the Turks and captured Jerusalem (Dec. 9, 1917). The League of Nations mandate awarded to Britain was put in force Sept. 29, 1923.

Meanwhile, a movement had been founded in 1897 by Theodor Herzl to create a Jewish homeland in Palestine, and a considerable number of Jewish immigrants had entered the country prior to World War I. On Nov. 2, 1917, official British recognition was given both to the growing Arab nationalist movement and to the Zionist aspirations by the issuance of the so-called Balfour Declaration.

The declaration was attacked by the Arabs. Throughout the period between the two World Wars, outbreaks of violence and open revolt occurred. Jewish immigration continued, especially after the rise of Hitler. A British royal commission report ap-

proved by the British Government July 7, 1937, recommended the partition of Palestine into an Arab and a Jewish state separated by a mandated area in the vicinity of Jerusalem and at Nazareth. The Arabs opposed the proposal, advocating instead the establishment of an independent Palestine with full minority rights for the Jews. In May, 1939, the British Government issued a White Paper declaring the establishment of a Jewish state contrary to British obligations to the Arabs and promising, after a transitory period of ten years, the establishment of an independent Palestine in which Arabs and Jews would share authority in government. During the next five years, 75,000 Jews were to be allowed to enter Palestine. These proposals did not satisfy either party, and the League Mandates Commission questioned their validity, but the outbreak of World War II overshadowed all other issues:

Arab-Jewish co-operation in the war effort introduced a period of order, but the end of European hostilities in 1945 brought a renewal of friction and the formation of the Arab League in that year served to demarcate lines of opposition. By 1946, there were many acts of terrorism by the Irgun Zvai Leumi, an illegal army, and the Stern Gang, both of which were repudiated by the Jewish Agency for Palestine.

Attempts to bring Jewish immigrants into Palestine illegally were intensified thereafter, and terrorism grew apace. Meanwhile, on Feb. 14, 1947, the Atlee government referred the whole problem to the United Nations for advice. The majority report of a special U. N. investigating committee recommended to the General Assembly in Sept., 1947, that Palestine be partitioned into Arab and Jewish states which would be independent politically but united economically. Jerusalem would be under international trusteeship. The minority recommended a federal unitary state similar to that proposed by Britain in Feb., 1947 and rejected by both sides.

Acceptance of the majority report by the U. N. General Assembly on Nov. 29, 1947 touched off new outbreaks of violence which British troops had difficulty in controlling. The decision was generally accepted by the Jews, but members of the Arab League announced their determination to resist partition by force, if necessary.

The Security Council voted on April 2, 1948, to call a special session of the General Assembly to reconsider the partition plan and possibly to put Palestine under temporary U. N. trusteeship. Instead, the Assembly, without disturbing the partition plan, voted on May 14 to send a U. N. mediator to Palestine to attempt to secure peace. Count Folke Bernadotte of Sweden

was unanimously chosen mediator, May 20.

Termination of the British mandate on May 14 and withdrawal of British forces brought new violence. An independent state of Israel was immediately proclaimed by the Jewish National Council, and Arab forces converged on Palestine from the south, north and east, spearheaded by the crack British-trained Arab Legion of King Abdullah of Jordan. Within a few hours Arab-Jewish hostilities were in full swing. On June 1, however, both sides accepted a Security Council request for a four-week truce which went into effect on June 11. Count Bernadotte's efforts to effect a compromise were unsuccessful, and on July 9 hostilities were resumed. On July 15 the Council voted to invoke for the first time Article 39 of the U. N. Charter; it declared the situation a menace to world peace and effected an indefinite truce by threatening to employ sanctions or military force to end the conflict. By July 21 all fighting had again ceased and Count Bernadotte resumed his efforts to bring about a lasting compromise. He was assassinated on Sept. 17 within the Israeli-held area of Jerusalem by Jewish dissidents, and his duties were taken over by Dr. Ralph Bunche.

Fighting broke out again in October, 1948, on the southern front, in the course of which Israeli forces made important gains against Egyptian positions in the Negeb and even penetrated a short distance into Egypt before the final cease-fire took effect on Jan. 7, 1949.

On Feb. 24, 1949, Israel and Egypt concluded an armistice agreement, the general effect of which was to freeze Israeli and Egyptian positions, with some exceptions, without prejudice to a final political settlement. Israel and Jordan concluded a similar pact on April 3 in respect to central and eastern Palestine and Jerusalem.

In April, 1950, Arab-held eastern and central Palestine, including the Old City of Jerusalem, was incorporated into Jordan by action of the Jordanian parliament.

The partition plan adopted by the U. N. in Nov., 1947, had awarded three distinct parts of Palestine to the Jews. The northernmost, situated immediately west of the River Jordan and around the shores of the Sea of Tiberias, has Safad and Tiberias as its most important towns, and includes the greater part of the valley of Jezreel. The western and economically most important region lies along the Mediterranean from Haifa and the Plain of Esdraelon in the north to the Rehoboth area in the south and includes the coastal plain of Sharon—the center of Palestine's citrus industry—the port of Haifa, one of the best in the Near East, and the city of Tel Aviv, a growing industrial center. The third

region consists of the greater part of the Negebe, the southern desert area with an outlet to the Red Sea at the head of the Gulf of Aqaba.

In addition, Israel holds western Galilee, awarded to the Arabs under the partition plan, and a broad corridor from Tel Aviv to Jerusalem through central Palestine, all of which had been awarded to the Arabs, as well as part of modern Jerusalem, which under the partition plan was to be placed under U. N. trusteeship.

GOVERNMENT. The declaration of independence, issued May 14, 1948, by the Jewish National Council (*Vaad Leumi*), stated that the new nation would be "based on the precepts of liberty, justice and peace taught by the Hebrew prophets." On Feb. 14, 1949, the Constituent Assembly adopted a constitution setting up a republican form of government headed by a president elected for a 5-year term by the Chamber of Deputies. Legislative power is vested in the Chamber of Deputies, the members of which are elected by the vote of all citizens who have reached the age of 21. The government is administered by the cabinet headed by the premier and collectively responsible to the Chamber of Deputies.

Elections held July 30, 1951, divided the 120 seats in the Chamber of Deputies (*Knesset*) as follows: Mapai (Labor), 46; General Zionist (rightist), 20; parties associated with Mapai, 17; Mapam (United Workers), 15; Communists, 5; others, 17.

The constitution characterizes Israel as the national home of the Jewish people and directs the admission of every Jew who desires to settle within its borders, subject to control of the Chamber of Deputies. Between May, 1948, and Dec. 31, 1951, 690,000 Jewish immigrants entered Israel.

The army numbered about 75,000 in 1951.

SOCIAL AND ECONOMIC CONDITIONS. Education is under the supervision of the Ministry of Education. Kindergarten and elementary education is free; most secondary schools are semiprivate. In 1950-51 there were 703 elementary schools with 130,721 pupils, 113 secondary schools with 12,923 students, and 97 Arab schools with 24,240 students. The Hebrew university in Jerusalem had 1,862 students in 1951.

Agriculture is the chief economic activity. The maritime plain, the plain of Esdraelon and the northern Jordan valley are the principal agricultural areas. Citrus growing, confined largely to the maritime plain, normally furnishes the major export crop. Production (1950-51) was 327,000 metric tons. Others include olives, rice, fruits and vegetables, figs, tobacco, wheat, barley, corn, sesame and potatoes. There

are many collective and co-operative rural settlements.

Industry is developing rapidly, especially the food-processing, textile, metalworking and chemical groups. Diamond cutting, although dependent on rough diamond imports, is of major importance; and there are oil refineries and storage tanks at Haifa, a terminus of the pipeline from the Iraqi oil fields.

Recent foreign-trade statistics are as follows (in millions of Israeli pounds):

	1949	1950	1951
Exports	10.6	13.2	16.7
Imports	87.7	102.6	122.6

Chief exports in 1951 were citrus fruits and concentrates (34%), polished diamonds (25%) and woollen manufactures (7%). Leading customers were Britain (31%) and the U. S. (22%); leading suppliers, the U. S. (32%) and Britain (10%). Leading imports were crude oil (7%) and wheat (4%).

Mineral resources are limited. They include gypsum, sulfur, limestone, and rock salt, together with potash and bromine from the Dead Sea. There are few forest areas, and wood is a major import.

Internal communication is provided by 205 miles of railway (in operation, 1951) and a good highway network totaling 1,530 miles (1952). The excellent airport at Lydda, near Tel Aviv, is served by major international lines and El Al, Israel's international line. The merchant marine had 30 vessels (100 tons and over), aggregating 107,487 gross tons, on June 1, 1952.

Israel has been heavily dependent on international loans. The budget for 1951-52 balanced at £1 198,500,000, including £1 85,000,000 for development and £1 38,000,000 for defense.

TOPOGRAPHY AND CLIMATE. Northern Israel is largely a plateau traversed from north to south by mountains and broken by great depressions, also running from north to south. The maritime plain is remarkably fertile, but the southern Negebe region, which comprises almost half the total area, is largely a wide desert steppe area. The Jordan, the only important river, rises in Syria and flows along the Jordan border through the Hule marshes and lake and the Sea of Tiberias (Galilee) into Jordanian Palestine and thence into the Dead Sea (1,290 feet below sea level). The western and southern shores of the Dead Sea are in Israel.

Summers are hot and dry, with occasional maximum temperature of 100°. The mean annual temperature at Jerusalem is 62.8°. Rainfall occurs chiefly in the autumn and spring; the mean annual average is 28 inches along the coast and 26 inches in Jerusalem.

Italy (Republic)

(Repubblica Italiana)

Area: 116,235 square miles.
Population (census 1951): 47,020,536
(predominantly Italian).

Density per square mile: 404.5.

President: Luigi Einaudi.

Premier: Alcide de Gasperi.

Principal cities (census 1951): Rome, 1,606,739 (capital); Milan, 1,264,402 (leading financial, industrial center); Naples, 1,003,815 (seaport); Turin, 711,492 (auto works); Genoa, 678,200 (seaport); Palermo, 482,594 (Sicilian seaport).

Monetary unit: Lira.

Religions: Roman Catholic, 99.6%; others (Protestant, Orthodox, Jewish), .4%.

HISTORY. Modern Italy did not exist as a unified country until 1870. Until A.D. 476, when the German Odoacer became head of the Roman Empire in the west, the history of Italy was largely the history of Rome. From A.D. 800 on, the Holy Roman Emperors, the Popes, Normans, Lombards and Saracens all vied for control over various segments of the Italian peninsula. Numerous city states, such as Venice and Genoa, and many small principalities flourished in the late Middle Ages.

In 1713, after the War of the Spanish Succession, Milan, Naples and Sardinia were handed over to Austria, but the Hapsburg influence on the peninsula was interrupted for a short time after 1800 when Italy was unified by Napoleon, who crowned himself King of Italy on May 26, 1805. After the Congress of Vienna in 1815, Austria continued to be the dominant power in Italy.

The movement for national unity began in the middle 19th century, staged by the "Young Italy" group headed by Giuseppe Mazzini. In 1858 Count Cavour, prime minister under King Victor Emmanuel II of Sardinia, secured the aid of Napoleon III of France in unifying Italy. After French and Sardinian forces had defeated the Austrians in 1859, Lombardy was annexed to Sardinia, and by the time the first Italian parliament opened at Turin in Feb., 1861, all Italy was represented except Venetia, held by Austria, and Rome, which was the territory of the Pope. On February 18, 1861, Victor Emmanuel II was proclaimed King of united Italy.

In 1866 Italy sided with Prussia against Austria and received Venetia; Rome was seized in 1870. In 1882 the young nation entered into the Triple Alliance with Austria and Germany. After war with Turkey in 1911-12, the Italians were awarded Tripoli in North Africa and the Dodecanese islands in the Aegean Sea.

Italy denounced the Triple Alliance on May 3, 1915, and declared war on Austria on May 24. By the treaty of St. Germain,

on Sept. 10, 1919, the south Tirol and the Istrian peninsula were awarded to Italy.

In the years immediately following World War I, Italy was a virtual battleground between the Socialists and Benito Mussolini's new Fascist movement. The weak government was powerless to maintain order as the two sides fought for power. Finally, on Oct. 30, 1922, the Fascists staged their "March on Rome" and took over the government. Mussolini was named premier by King Victor Emmanuel III. Il Duce and his Fascist Grand Council soon made Italy into a corporate state, with himself as dictator.

In 1935-36 Italy successfully invaded, conquered and annexed Ethiopia, despite the complaints of the League of Nations and economic sanctions.

On November 6, 1937, Italy joined the German-Japanese anti-Comintern pact and on December 11 withdrew from the League of Nations. The Rome-Berlin Axis was converted into a full military alliance on May 22, 1939. Meanwhile, Italian troops had seized Albania in April, 1939.

WORLD WAR II. On June 10, 1940, Mussolini announced a declaration of war against France (already in the throes of defeat) and Britain. Italian troops were able to advance only a few miles into France before the Armistice was concluded on June 24, under which Italy annexed a small strip of France. On October 28, 1940, Italian forces invaded Greece from Albania, but were driven back by the Greeks, who held a third of Albania by the time the Germans launched their Balkan campaign on April 6, 1941. Italy subsequently occupied parts of Yugoslavia and Greece. Following the German capitulation in North Africa and the fall of Sicily, Mussolini was ousted on July 25, 1943, and Marshal Pietro Badoglio formed a new government. On September 3, 1943, the date of the invasion of the Italian mainland by Allied forces, a military armistice was signed between General Eisenhower and Badoglio, and the legislative and administrative activities of the government were made subject to the approval of an Allied Commission.

On June 9, 1944, five days after the Allies entered Rome, Badoglio was succeeded as premier by Ivanoe Bonomi, a Socialist, who formed a coalition cabinet. The government was recognized by the Allies as the *de facto* government of Italy on October 25, but only as a cobelligerent, not as an ally. Later it was given full legislative powers and the right to resume diplomatic relations.

Upon the collapse of German resistance in the north, Mussolini was tracked down and put to death by partisan forces on April 28, 1945. On December 10, Alcide de Gasperi, a Christian Democrat, took over

from Ferruccio Parri, who had succeeded Bonomi as premier in June.

On June 2, 1946, the Italian people voted in favor of a republic, and King Humbert II, who had succeeded his father on May 9, went into exile. De Gasperi remained at the helm, first with a coalition cabinet and later (during the month of June, 1947) with a Christian Democrat-Independent government.

The new constitution drafted by the constituent assembly took effect on Jan. 1, 1948. Following the Communist defeat in the elections of April, 1948, De Gasperi formed another coalition cabinet from which the Communist and left-wing Socialist bloc was again excluded. Luigi Einaudi, veteran Liberal leader, was elected first president of the Republic on May 11. In April 1949, Italy adhered to the North Atlantic pact.

Provincial elections held May 28, 1952, resulted in slight gains for the Communist and the neo-Fascist groups.

GOVERNMENT. Under the 1947 constitution Italy is a "democratic Republic founded on labor." The president is elected for seven years by parliament in joint session with regional delegates. The cabinet, headed by the premier and nominated by the president, must enjoy the confidence of parliament, which is composed of the Chamber of Deputies, popularly elected for a five-year term, and the Senate. All citizens are duty-bound to vote.

Articles 115-133 of the constitution introduced a new concept of regional autonomy, dividing the country into 19 regions with locally-elected governments which control regional affairs. Five regions, including the islands of Sicily and Sardinia, enjoy a special degree of autonomy. Below the regions in the governmental organization are the provinces and communes.

The Chamber of Deputies elected on April 18, 1948, had 574 members, of whom 306 were Christian Democrat, 183 Popular Front (Socialist-Communist coalition), 33 right-wing Socialists, and 52 members of other parties. The Senate had 343 members, 237 of whom were elected by the regions; the other 106 were deputies who were imprisoned during the Fascist regime and former premiers who under the constitution hold their seats for life.

PEACE TREATY OF 1947. The peace treaty which took effect Sept. 15, 1947, required Italian renunciation of all claims in Ethiopia and Greece, the cession of the Dodecanese to Greece, and of five small Alpine areas to France. In addition, the major part of the Istrian peninsula, including Fiume and Pola, went to Yugoslavia. The Free Territory of Trieste was carved out of the area to the west of the new Yugoslav frontier.

Italy was to pay reparations of \$100,000,000 in kind over a seven-year period to the Soviet Union, \$125,000,000 to Yugoslavia, \$105,000,000 to Greece, \$25,000,000 to Ethiopia and \$5,000,000 to Albania; also to make two-thirds restitution for war-time damage to Allied property in Italy. **DEFENSE.** The 1947 treaty required Italy to reduce the strength of her army to 250,000 men (including *carabinieri*), the navy to 25,000 (including naval air arm) and the air force to 25,000 (with 350 planes). The fleet was reduced to 2 battleships, 4 cruisers, 20 destroyers and large torpedo boats, plus smaller craft. Major war vessels placed at the disposal of the Big Four included 3 battleships, 5 cruisers, 8 submarines and 13 destroyers and large torpedo boats. Extensive areas along Italy's borders and in the outlying islands were demilitarized.

EDUCATION. Elementary education is free and compulsory from 6 to 14. Elementary schools numbered 38,766 in 1948-49, with 4,878,149 pupils. The 3,446 government secondary schools had 728,884 pupils, while 27 universities and institutions of higher learning had 167,978 students. The University of Rome (founded 1303) had 25,622 students; Naples (founded 1224), 24,504; and Milan, 17,571.

RELIGION. Although the country is predominantly Roman Catholic, religious freedom is permitted. Catholic religious teaching is given in all elementary and intermediate schools. Relations with the Church are regulated by the treaty with the Holy See of Feb. 11, 1929, which established the temporal power of the Pope over Vatican City.

AGRICULTURE. Agriculture, the most important branch of Italy's economy, engages more than a third of the population. It is extremely diversified; differences of altitude, soil and climate allow the production of all European crops from rye to rice, from apples to oranges, and from hemp to cotton. Approximately 41,275,000 acres are cultivated. Italy ranks next to France in wine production (average 1931-42: 1,024,000,000 U. S. gal.; 1951: 975,000,000 gal.) and next to Spain in olive-oil production. The Italian climate and soil are well suited to fruit growing.

Before World War II the Fascist government carried on a wide land reclamation program, mostly in Emilia, Apulia, and the Venetian provinces.

Crop data (in millions of metric tons):

	1949	1950	1951*
Wheat	7,072	7,625	6,780
Rye	125	181	123
Barley	226	291	289
Oats	415	553	508
Sugar beets	3,619	4,470	5,871
Olive oil	181	171	320

* Provisional.

Livestock and dairy farming are important in Italy. Of the 50-odd varieties of Italian cheese, the best known are the hard parmesan and pecorino (the latter made from ewe's milk) and the soft bel paese and gorgonzola. Cheese production in 1950 totaled 261,000 metric tons. In 1951, Italy had 8,325,000 cattle, 10,386,000 sheep and 4,052,000 hogs. Wool production (1950) totaled 16,000 metric tons.

INDUSTRY. Prior to World War II, there were approximately 730,000 industrial establishments in Italy, of which more than 1,000 employed at least 250 workers each. In 1948, approximately 3,250,000 workers were employed in industry. While a large proportion of small and medium sized concerns were common in industry before World War II, there was a growing tendency, fostered by the nature of the corporate state, toward industrial concentration. The textile industry, largest and most important, ordinarily supplied most of the home markets and left a large margin for export. It made rapid recovery after World War II, accounting for nearly half of the nation's exports. The metal industries are handicapped by lack of coal and of sufficient iron ore reserves. The chemical, clothing and food industries are also important. Industrial production is centered in the north.

Production of steel ingots and castings in 1951 was 3,060,000 metric tons; that of pig iron and ferroalloys, 1,048,800 tons.

Italy's full participation in the European Recovery Program has had a stimulating effect on the nation's war-shattered economy and has relieved at least partially the food deficits resulting from over-population.

TRADE. Statistics of Italy's foreign trade, in billions of lire, are as follows:

	1949	1950	1951
Exports	641.3	752.4	1,027.4
Imports	895.4	925.4	1,355.9

Italy's leading customers by value in 1951 were Britain (13%), France (9%), Germany (8%), the U. S. (7%) and Switzerland (6%). Principal suppliers were the U. S. (21%), Germany (7%), Australia (6%) and Argentina and France (each 5%). Chief exports were machinery and vehicles (16%), cotton products (14%) and synthetic fibers (12%). Leading imports included cotton, coal and coke, wool, grain and petroleum and products.

NATURAL RESOURCES. Italy is ordinarily the world's largest producer of mercury; it is also an important producer of sulfur. In 1950, 1,839 metric tons of mercury and 229,163 tons of sulfur were produced. The nation lacks, however, the staple minerals of coal, oil and iron, and is forced to import them. Production of coal and lignite in 1950 was 1,810,000 metric tons; 7,657,-

723 tons of coal were imported that year. Building stone, particularly marble, is plentiful. In the south Tirol and the central Apennines, Italy has abundant water power. In 1951, the total power generated was 29,000,000,000 kwh, mostly by hydro-electric plants.

Less than 20 per cent of Italy's area is forested. Principal products are soft and hard timber, charcoal and cork. The fishing industry does not fill domestic needs. Coral and sponges are marketed.

COMMUNICATIONS. According to *Lloyd's Register*, the merchant marine totaled 1,071 steam and motor ships (100 tons and over), aggregating 2,917,323 gross tons, on June 30, 1951. On April 1, 1952, 47 vessels of 259,913 gross tons were under construction in Italian yards.

There are more than 150 seaports, of which the principal are Genoa, Venice, Savona, Naples and Leghorn. Coastwise traffic is particularly important because of difficult land communications. Railways open to traffic in 1950 totaled 13,449 miles. Highways totaled about 108,000 miles.

FINANCE. Data (in billions of lire):

	1949-50	1950-51	1951-52*
Revenue	1,134.0	1,282.6	1,455.0
Expenditure	1,558.9	1,764.3	1,824.0

* Budget estimate.

The total national debt was 2,851,500,-000,000 lire on June 30, 1951.

TOPOGRAPHY. Approximately 600 of boot-shaped Italy's 708 miles of length are in the long peninsula that projects into the Mediterranean from the fertile basin of the Po River. The Apennines, branching off from the Alps between Nice and Genoa, form the peninsula's backbone, and rise to a maximum height of 9,560 feet at the Gran Sasso d'Italia (Corno). The Alps are Italy's northern boundary.

Several islands form part of Italy. Sicily, 9,926 square miles, lies off the toe of the boot, across the Strait of Messina, with a steep and rock-bound northern coast and gentler slopes to the sea in the west and south. Mt. Etna, an active volcano, rises to 10,741 feet, and most of Sicily is more than 500 feet in elevation. Sixty-two miles southwest of Sicily lies Pantelleria, 45 square miles, and south of that are Lampedusa and Linosa. Sardinia, 9,301 square miles, just south of Corsica and about 125 miles west of the nearest Italian mainland, is largely mountainous, stony and unproductive.

Italy has many northern lakes, lying below the snow-covered peaks of the Alps. The largest are Garda (143 sq. mi.), Maggiore (83 sq. mi.) and Como (55 sq. mi.). The Po, the principal river, rises in the Alps on Italy's western border and flows across the Lombard plain into the Adri-

atic. The Arno and Tiber Rivers, rising in the Apennines, flow generally westward. Elsewhere are hundreds of short streams. CLIMATE. Italy's climate is variable. The Italian Riviera along the Gulf of Genoa is subtropical and highly favored by tourists. The winters in the high Apennines are cold and bitter. The western slope of peninsular Italy is warmer than the eastern side, and the Po basin in the north has cold winters and very hot summers. Sicily has a warm and equable climate. In Rome, December through February are the coldest months (average 47°), July and August the warmest (75°), with abundant sunshine.

FORMER ITALIAN COLONIAL EMPIRE

Under the 1947 treaty, Italy ceded the Dodecanese to Greece and renounced title to her African possessions, which consisted of Libya, Eritrea and Italian Somaliland. Somaliland, however, remained under Italian administration as a U. N. trust territory.

ITALIAN SOMALILAND—Status: U. N. trust territory under Italian administration.

Administrator: Giovanni Fornari.

Capital: Mogadiscio (population: 45,000).

Foreign trade (1948): exports, £180,500; imports, £1,113,400.

Agricultural products: dressed skins, cattle, sugar, cotton, cottonseed oil, fruits, bananas.

Forest products: gum, resin, kapok.

Mineral: tin.

Italian Somaliland, extending along Africa's east coast from the Gulf of Aden south to Kenya, fell within the Italian sphere of influence by treaties with the Somali sultans in 1889 and by agreements with Britain in 1905 and 1924, with the sultan of Zanzibar in 1905, and with Ethiopia in 1907. After the conquest of Ethiopia in 1936, the area was incorporated into Italian East Africa. It was occupied in Feb., 1941, by British Imperial troops and, reduced to its pre-1936 area, was placed under British military administration.

Administration was turned over to Italy on Apr. 1, 1950, pursuant to a decision of the U. N. General Assembly on Nov. 21, 1949, under which the area is a U. N. trust territory. Administration is in the hands of Italy for a period of 10 years during which it is to be prepared for independence.

The overwhelming majority of the population are Somalis who belong to the Sunni sect of Islam; they are a pastoral, nomadic people whose livelihood depends on cattle, sheep and camels. However, the Italians (numbering 2,985 in 1949) established plantations in the south, especially in the fertile Juba region. The colony was far from self-supporting, requiring heavy Italian subsidy. The climate is torrid.

Japan (Empire) (Nippon)

Area: 146,690 square miles.

Population (est. 1951): 84,400,000.

Density per square mile: 575.4.

Ruler: Emperor Hirohito.

Premier: Shigeru Yoshida.

Principal cities (census 1950): Tokyo, 5,385,071 (capital; financial, manufacturing center); Osaka, 1,956,136 (chief industrial center); Kyoto, 1,101,854 (manufacturing); Nagoya, 1,030,635 (machinery, textiles); Yokohama, 951,189 (seaport); Kobe, 765,435 (seaport, ship-building); (est. 1947) Fukuoka, 328,586 (seaport, textiles); Niigata, 263,495 (manufacturing).

Monetary unit: Yen.

Language: Japanese.

Religions (1938): Buddhism, 60%; Shintoism, 21%; Protestant (215,166); Roman Catholic (118,856).

HISTORY. Japan's early history is inseparable from mythology. A series of legends attributes the creation of Japan to the sun goddess, from whom the later emperors were allegedly descended. The first of them was Jimmu Tennō, supposed to have ascended the throne on Feb. 11, 680 B.C.

Recorded Japanese history begins with the first contact with China in the 5th century A.D. Japan was then divided into strong feudal states, all nominally under the emperor, but with real power often held by a court minister or clan. In 1183 Yoritomo, chief of the Minamoto clan, was designated shogun (generalissimo) with the actual administration of the islands under his control. Clans came and went, but a dual government system—shogun and emperor—persisted till 1867.

First contact with the West came about 1542, when a Portuguese ship off course arrived in Japanese waters. Portuguese traders, Jesuit missionaries, and Spanish, Dutch and English traders followed. Suspicious of Christianity and Portuguese support of a local Japanese revolt, the shoguns restricted all foreigners in 1636-38 except the Dutch, who were confined to Nagasaki. Western attempts to renew trading relations failed until 1853, when Commodore Matthew Perry sailed an American fleet into Tokyo Bay with a letter from President Fillmore. A U. S. commercial treaty signed in 1859 was followed by similar pacts with Britain, France, the Netherlands and Russia, and the opening to foreign residents of the ports of Yokohama, Nagasaki and Hakodate.

Japan now quickly made the transition from a medieval to a modern power. Feudalism was abolished and industrialization was speeded. An imperial army was established with conscription. The shogun system was abolished in 1867 by Emperor Meiji, and parliamentary government was established in 1889. After a brief war with China in 1894-95, Japan acquired Formosa

(Taiwan), the Pescadores islands, and part of southern Manchuria. China also recognized the independence of Korea (Chosen), which Japan later annexed (1910).

In 1904-05 the new Japan won prestige by defeating Russia in the Russo-Japanese War, gaining the territory of southern Sakhalin (Karafuto) and Russia's port and rail rights in Manchuria. In World War I Japan, which took a negligible part in military operations, seized Germany's Pacific islands and leased areas in China. The Treaty of Versailles then awarded her a mandate over the islands.

At the Washington Conference of 1921-22, Japan agreed to respect Chinese national integrity. The series of Japanese aggressions which was to lead to the nation's downfall began in 1931 with the invasion of Manchuria. The following year, Japan set up this area as a puppet state, "Manchukuo," under Emperor Henry Pu-Yi, last of China's Manchu dynasty. On Nov. 25, 1936, Japan joined the Axis by signing the anti-Comintern pact. The invasion of China came the next year, and the Pearl Harbor attack was unleashed on Dec. 7, 1941.

For many months after Pearl Harbor, the Japanese Army and Navy enjoyed spectacular success, but by the end of 1942 the tide had begun to turn. Three years later the dropping of the world's first atomic bomb in combat on Hiroshima, followed by a second one on Nagasaki, knocked Japan swiftly into a surrender that already had become inevitable.

The formal surrender took place Sept. 2, 1945, aboard the battleship *Missouri* in Tokyo Bay. Southern Sakhalin and the Kurile Islands reverted to Russia, and Formosa (Taiwan) and Manchuria to China. The Pacific islands remained under U. S. occupation.

General of the Army Douglas MacArthur was appointed Supreme Commander for the Allied Powers (SCAP) Aug. 14, 1945. An 11-power (later 13-power) Far Eastern Commission was created to lay down occupation policies, while the 4-power Allied council advised and consulted with SCAP in carrying them out.

Soon after the surrender Japan began the process of democratizing its political, social and economic structure under Allied eyes. In 1946, MacArthur ordered Shidehara's cabinet to carry out a series of political purges. Elections held on April 10, 1946 brought 72.1% of the electorate to the polls, and resulted in a conservative victory. A Liberal, Shigeru Yoshida, took over the premiership on May 22, but his conservative policies brought both Allied and internal dissatisfaction.

Following the Socialists' victory in the elections of April 20, 1947, Japan's first

Socialist premier, Tetsu Katayama, a lifelong Christian, formed a cabinet composed of Socialists, Democrats and members of the People's Cooperative party on May 31, 1947. In July, 1947, the U. S. proposed an early conference of the eleven members of the Far Eastern Commission to consider a peace settlement for Japan. The proposal was accepted by all the member nations except the U.S.S.R., which insisted that the treaty be drafted by the four-power Council of Foreign Ministers (China replacing France), thus following the precedent set by the Italian and Axis satellite treaties.

Dissension between the left and right wings of his party forced Katayama's resignation on Feb. 10, 1948. He was succeeded by Hitoshi Ashida, a Democrat leader, on Feb. 21. Ashida yielded to Shigeru Yoshida on Oct. 14, 1948. The latter was renamed premier Feb. 11, 1949, after his Liberal party won an absolute majority in the January, 1949, elections.

Pres. Truman removed Gen. MacArthur from his post as Supreme Commander for the Allied Powers on April 11, 1951, and named Gen. Matthew B. Ridgway in his place.

On Sept. 8, 1951, a treaty of peace with Japan was signed at San Francisco by the U. S. and 47 other nations. The U.S.S.R., Czechoslovakia and Poland were present at the conference but did not sign the treaty, which became effective April 28, 1952.

The treaty did not place any restrictions on Japan's political institutions, economy or armed forces. Japan was limited in territory to its 4 home islands, although the treaty did not recognize Soviet seizure of the Kurile islands and South Sakhalin.

RULER. Emperor Hirohito, born April 29, 1901, succeeded his father, Yoshihito, on Dec. 25, 1926. He was married on Jan. 26, 1924, to Princess Nagako, born in 1903. To them were born two sons, Crown Prince Akihito (Dec. 23, 1933) and Prince Masahito (Nov. 28, 1935), and 5 daughters. Succession is in the male line only.

NATIONAL GOVERNMENT. The new constitution, effective May 3, 1947, made drastic changes in Japan's political system. The Emperor retains only ceremonial functions, and executive power is vested in the cabinet, headed by the premier and collectively responsible to the Diet. Law-making power is vested solely in the Diet, composed of two houses—the House of Representatives, popularly elected for four-year terms, and the House of Councillors, with 250 members elected for six-year terms. A bill of rights guarantees certain basic liberties. Women are enfranchised for the first time. Sovereignty, formerly vested in the Emperor, now is vested in the people, and the House of Representa-

tives can override the veto of the House of Councillors by a two-thirds vote.

The elections of January, 1949, distributed the 466 seats in the House of Representatives as follows (1947 standing in parentheses): Democratic Liberal, 264 (133); Democrat, 68 (126); Socialist, 49 (143); Communist, 35 (4); People's Cooperative party, 14 (31); others, 36 (29).

DEFENSE. The War, Navy, and Munitions Ministries and the Army and Navy General Staffs were abolished, and the army and navy were completely demobilized. The few remaining major ships in the navy were sunk, and the smaller ships divided among the Allies. The peace treaty of 1951 placed no limitations on the right of Japan to rearm, but the constitution prohibited the maintenance of armed forces. The national police reserve numbered 75,000 men in 1952.

The bilateral defense pact between the U. S. and Japan which became effective April 28, 1952, provided for the indefinite disposition of U. S. armed forces in and about Japan.

EDUCATION. Article 26 of the 1947 Constitution provides that "all people shall have the right to receive an equal education correspondent to their ability," and that education shall be free and compulsory as provided by law. A 1947 law provided a simplified school structure with 6 years of elementary education (compulsory), 3 of lower secondary, 3 of upper secondary and 4 of university education. Under U. S. supervision the school curriculum has been simplified and purged of militaristic and chauvinistic influences. In April 1951, Japan had 21,313 elementary schools with 11,419,267 pupils, 14,301 secondary schools with 7,319,978 pupils and 422 colleges and universities with 420,634 students.

AGRICULTURE. Japan is traditionally a land of small farms and, except in Hokkaido, the northernmost island, there is almost no large-scale farming and animal husbandry. The average holding is less than three acres. Double cropping makes self-sufficiency possible, but on a very low level of subsistence. Crop production, although hampered by fertilizer shortages, has reached prewar levels, but increased population has caused food deficits.

Major crops (thousands of metric tons):

	1949	1950	1951*
Rice (rough)	11,929	12,005	11,310
Barley	2,074	1,958	2,165
Wheat	1,304	1,338	1,490
Potatoes	2,522	2,442	2,561

* Preliminary.

INDUSTRY. Prewar Japan was one of the world's leading industrial nations and the only country in the Far East with highly developed textile, steel, machinery, chemi-

cal and electrical industries. The textile industry was dominant, but after 1931 considerable expansion took place in the heavy industries—metal, machinery-building and chemical—which were adaptable to war purposes.

Postwar industrial rehabilitation proceeded slowly, retarded by labor troubles and deterioration of equipment; the manufacturing index, however, stood at 103% of the 1937 level in 1951.

INDUSTRIAL PRODUCTION

(monthly average, thousands metric tons)

	1949	1950	1951
Pig iron and ferroalloys	134	192	261
Steel ingots and castings	259	403	542
Cotton yarn	13.1	19.9	28.1
Cotton fabrics	68.6*	107.4*	151.8*
Cement	273	372	546

* Millions of square meters.

Directives issued in 1945 effected the dissolution of the huge interlocking monopolies (*Zaibatsu*) in business and finance. Voting rights in the 80 major holding companies and 3,500 subsidiaries were taken over by a government commission which also seized securities held by members of *Zaibatsu* families, for resale to the public.

In 1946, Government-owned arms plants and naval yards and 505 of the largest industrial plants were seized for distribution as reparations in line with the Allied policy of reducing Japan's industrial potential. However, the Allies were unable to agree on the allocation of reparations shares to claimant nations. Limited deliveries were made under an interim program in 1948, but on May 12, 1949, the U. S. announced its opposition to further reparations because they would prevent Japan's recovery to the point of self-sufficiency.

TRADE. Before World War II, Japan ranked fifth in world trade. Private trade was resumed in Sept., 1947. Recent data are as follows (in millions of U. S. dollars):

	1949	1950	1951
Exports	509.7	820.1	1,354.7
Imports	904.8	974.3	2,217.4

Leading customers in 1950 were the U. S. (22%) and China, Pakistan and Hong Kong (each 7%); leading suppliers, the U. S. (44%), China (8%) and India (2%). Leading exports in 1949 were cotton fabrics (37%), raw silk and silk fabrics (7%) and synthetic fibers and manufactures (6%). Important imports are foodstuffs, raw cotton and other textile fibers, and fertilizers.

COMMUNICATIONS. On Dec. 31, 1939, Japan had 4,084 ships of more than 100 tons, with an aggregate tonnage of 5,728,779.

Before World War II the merchant marine carried almost 80 per cent of the foreign trade and was surpassed only by those of the U. S. and Britain. Wartime losses were enormous, but recovery was fairly steady. By June 30, 1951, there were 1,529 vessels (100 tons and over) with a total tonnage of 2,182,352, an increase of 53% since 1946.

Railway mileage in 1949 was 17,017. The highway system (1946) totaled 534,424 miles.

FINANCE. World War II left Japan with a staggering public debt, mounting inflation and a disorganized financial system. The 1952-53 general budget totaled 865,100,000,000 yen (1951-52 revised: 793,700,000,000 yen). The national debt totaled 544,625,000,000 yen on March 31, 1952.

MINERALS. Japan is relatively poor in minerals. Crude oil production in 1951 in Japan proper was 2,390,000 barrels, about one-third of current domestic requirements. With coal production estimated at 43,300,000 metric tons, the nation was still confronted with a fuel shortage. Other minerals include lead, silver, gold and copper.

FORESTS. Japan is well-wooded, with about 60,000,000 acres of forest. Among forest products are bamboo, charcoal and timber. Wood pulp production in 1950 totaled 741,000 metric tons. Newsprint production was 132,000 tons and that of lumber, 8,632,000 cu.m.

FISHERIES. Fishing, one of Japan's biggest industries, provides a staple food and considerable exports in normal years. The prewar fishing fleet of 356,462 vessels ranged from Alaska to the South Seas. The 1950 catch was 3,794,000 metric tons.

TOPOGRAPHY. Japan's four main islands are Honshu, Hokkaido, Kyushu and Shikoku. The Ryukyu chain to the southwest is U. S. occupied and the Kuriles to the northeast are Russian occupied. The surface of the main islands consists largely of mountains separated by narrow valleys. There are about 50 more or less active volcanoes, including famous Fujiyama near Tokyo (12,385 ft.). Earthquakes are frequent. Japan has many rivers, broken by shallows and rapids, and navigable usually for flat-bottomed boats.

CLIMATE. The Japanese climate ranges from subtropical in its southern extremes, to winter cold and snow in Hokkaido. The winter temperatures are moderated in the central islands by the Japan Current. Mean annual temperature in Tokyo is 56°.

Ruler: King Hussein II (under regency).
Prime Minister: Abdul Huda Pasha.

Principal cities (est.): Jerusalem (Jordan), 75,000 (religious center); Amman, 60,000 (capital).

Monetary unit: Jordani dinar.

Language: Arabic.

Religions†: Moslem (Sunni), except about 30,000 native Christians and 7,000 Circassians.

* Including Arab Palestine (area: c. 2,350 sq. mi.; population: c. 1,000,000).

† Excluding Arab Palestine.

HISTORY. Jordan, once the Lordship of Oultre-Jourdain in the Latin Kingdom of Jerusalem, attracted world-wide attention in 1948 when its king, Abdullah, led Arab forces in the invasion of Palestine from the east. An ancient land, about the size of Indiana, the small kingdom was known in the time of Moses as Edom and Moab. It passed to the Amorites of Damascus and in A.D. 106 became part of the Roman province of Arabia. In 633-36 it was conquered by the Arabs, and a period of decline and depopulation ensued.

Conquered by the British in World War I, Jordan was separated from the Palestine mandate in 1920, and placed in 1921 under the rule of Abdullah ibn Hussein. In 1923 Britain recognized Jordan's independence, subject to the mandate. During World War II, Jordan co-operated completely with Britain. On March 22, 1946, Britain abolished the mandate and recognized the full and complete independence of Jordan. That part of Palestine occupied by Jordani troops was formally incorporated by action of the Jordani parliament on Apr. 24, 1950.

Abdullah was assassinated June 20, 1951. His son Talal was deposed as mentally ill Aug. 11, 1952. Talal's son Hussein, born 1935, succeeded him.

GOVERNMENT AND DEFENSE. Jordan is a constitutional monarchy. The King rules with the aid of a cabinet of department heads responsible to parliament, which consists of the popularly elected chamber of deputies of 40 members and the senate of 20 appointed members. Arab Palestine is represented in both bodies.

Defense of the country is entrusted to the British-trained Arab Legion of about 15,000 men, the most effective force among all Arab armies. The Anglo-Trans-Jordanian treaty of March 20, 1948, replacing that of March 22, 1946, has mutual assistance provisions and permits Britain to maintain air force units. Jordan receives an annual defense subsidy of £3,000,000 from Britain.

SOCIAL AND ECONOMIC CONDITIONS. Life in Jordan is primitive; there are estimated to be 50,000 nomads and 120,000 seminomads. At least 95 per cent of the total area is deserted. Illiteracy is widespread. In 1950, the 328 government schools had 56,425 pupils.

Jordan (Hashemite Kingdom of)

Area (est.): 39,460 sq. mi.*

Population (est. 1951): 1,400,000.*

Density per square mile: 35.4.*

Most of the country is suitable only for pasturing sheep, goats and camels. Cultivated land is limited to a relatively small area west of the Hejaz Railway. In the drier cultivated areas of the plateau, the inhabitants retain tribal organization and still live in tents. Foreign trade is limited to the exchange of wheat, fresh fruit, wool and live animals for sugar, tea, and other necessities. Exports and re-exports in 1950 were 4,800,000 dinars; imports, 10,800,000.

Despite the sparse settlement of the country, Jordan has good roads to Israel, Syria and Iraq. It is crossed from north to south by the Hejaz Railway.

The 1950-51 budget (excluding subsidies) was balanced at 2,344,000 dinars.

TOPOGRAPHY AND CLIMATE. Jordan is mainly a plateau with an average altitude of 3,000 feet, sloping gently eastward. The western edge is a steep slope overlooking the Rift Valley (Jordan River, Dead Sea and Wadi el Araba) 3,000-4,000 feet below. In the south are mountains over 5,000 feet high and a sandstone area cut by deep canyons. Jordanian Palestine is largely a hilly plateau. Jordan borders on the Red Sea for a few miles in the southwest. The subtropical steppe and desert have wet cold winters and dry hot summers. Rainfall near the escarpment decreases from about 26 inches in the north to 10 inches in the south. Average maximum temperature in August is 92°; average minimum in January is 39°.

Korea (Chosen)

Area: 85,225 square miles.

Population (est. 1949): 29,238,641 (almost entirely Korean).

Density per square mile: 343.1.

President: Dr. Syngman Rhee.

Premier: (Vacant).

Principal cities (est. 1949): Seoul (Kyeong-song), 1,446,049 (capital); Pusan (Pusan), 473,619 (chief seaport); Pyongyang, 450,000 (capital, northern Korea); Taegu, 313,705 (silk center); Incheon, 265,767 (seaport).

Monetary unit: Won.

Languages: Korean, Chinese, Japanese.

Religions: Buddhist, Confucianist, Taoist, Christian (500,300 Christians in 1938).

HISTORY. Korea, a peninsula about 600 miles long extending out from Asia between the Yellow Sea and the Sea of Japan, became an international battleground in 1950 when Communist troops of North Korea invaded the U. N.-recognized Republic of South Korea below the 38th parallel.

According to legend which may be partly historical, a Chinese sage named Kija founded the kingdom of Chosun ("Morning Calm") in 1122 B.C. and thus began a dynasty which lasted until 193 B.C. In 108 B.C. Korea was annexed to China, and later

divided into three small principalities which formed the kingdom of Silla. Silla revolted in A.D. 918 and declared its independence. In 1592 the Koreans defeated a Japanese fleet and, with Chinese help, ousted the Japanese invaders from their land. In 1627, the Manchus seized Korea and placed it again under Chinese sovereignty. In the Chinese-Japanese War of 1894-95, Japan won predominant influence in Korea, and in 1905 reduced it to a protectorate. In 1910 Japan formally annexed Korea. A Korean bid for independence was crushed ruthlessly in 1919.

In Aug., 1945, at the end of World War II, Korea was occupied by Soviet and U. S. troops. The United States, United Kingdom and Soviet Union agreed at Moscow in Dec., 1945, that Korea should be placed under the trusteeship of those three powers and China for a period not to exceed five years and that, as the first step toward Korean independence, the U. S. and Soviet commanders should meet as soon as possible to agree upon the formation of an all-Korean provisional government. Agreement proved to be impossible. The U. S. referred the matter to the U. N. General Assembly, which set up a commission in November, 1947, to arrange for Korean elections and to aid in the formation of a government. The U.S.S.R. boycotted the commission's meetings, but elections were held for a national assembly in the U. S. zone on May 10, 1948, with seats left vacant for Soviet zone delegates. The assembly met for the first time on May 31, and on July 12 adopted a constitution setting up a one-house National Assembly with a government headed by a president. On July 20 Dr. Syngman Rhee was elected president by the Assembly, and on Aug. 12 the new Republic was recognized by the U. S. and China. It was also recognized as the legal government of Korea by the U. N. General Assembly on Dec. 12, 1948. Funds were made available to the new state under the ECA program.

On May 1, 1948, formation of a North Korean "People's Republic" in the Soviet zone north of the 38th parallel was announced. It claimed jurisdiction over all Korea and was a typical Soviet state under a constitution adopted Sept. 2, 1948, by a "People's Assembly." Soviet forces were withdrawn from north Korea late in 1948; at Korean request some U. S. forces remained in the south until June, 1949.

On June 25, 1950, South Korea was attacked by North Korean Communist forces. U. S. armed intervention was ordered on June 27 by Pres. Truman and on the same day the U. N. invoked military sanctions against North Korea. Gen. Douglas MacArthur was named commander of U. N. forces on July 7. U. S. and South Korean troops fought a heroic holding action, but

by the first week of August, they had been forced back to a 4,000 sq. mi. beachhead in southeast Korea. There they stood off superior north Korean forces until Sept. 15, when a major U. N. amphibious attack was launched far behind the Communist lines at Inchon, port of Seoul. By Sept. 30, U. N. forces were in complete control of South Korea; they then invaded North Korea and were nearing the Manchurian and Siberian borders when several hundred thousand Chinese Communist troops entered the conflict in late October. U. N. forces then retreated successfully below the 38th parallel where in succeeding months they repulsed several major attacks. On May 24, 1951, they recrossed the parallel and had made important new inroads into North Korea when truce negotiations began on July 10.

The negotiations, which were held at Kaesong, resulted in an impasse. They were broken off on Aug. 23 by the Communists, because U. N. forces allegedly had violated the truce area. The impasse continued upon resumption of negotiations Oct. 23, although agreement was reached on some points.

Gen. MacArthur was replaced as U. N. commander on April 11, 1951, by Gen. Matthew B. Ridgway, who in turn was succeeded on April 28, 1952, by Gen. Mark W. Clark.

SOCIAL AND ECONOMIC CONDITIONS. In 1947, there were 2,177,980 pupils in elementary schools, 158,325 in secondary schools, and 13,417 in higher schools. Less than half the population of school age (6 to 12) was in school at the beginning of 1950. There is a university at Seoul.

The Korean population is more or less homogeneous and successfully withstood Japanese efforts to assimilate it. South Korea has 43 per cent of the peninsula's area and over two-thirds of its population.

Korea, predominantly agricultural, cultivates about 12,000,000 acres. Chief products are rice, barley, oats, rye, millet, soybeans, tobacco, cotton and wheat. The 1949 rice crop in South Korea was about 2,956,000 tons. The political division of Korea destroyed its former self-supporting economy.

Industrial development was speeded in the last years of Japanese rule. The leading industries by value of output ordinarily are chemical, textile, food, beverage and tobacco. Korea north of the 38th parallel has by far the larger portion of the country's industry and abundant hydroelectric resources.

Korea's prewar foreign trade was closely linked with that of Japan. South Korea's postwar trade has been largely on a government-to-government basis, with most of the imports financed by U. S. funds. Such trade in 1948 included \$179,593,000

in imports and only \$8,865,000 in exports. Imports were principally foodstuffs, fertilizers, petroleum, coal and machinery. Exports consisted largely of tungsten ore and concentrates, graphite, marine products and ginseng.

Land communications, well developed by the Japanese for strategic reasons, included about 3,500 miles of railway and 20,000 miles of highway prior to the outbreak of war in 1950.

The 1950-51 budget for South Korea estimated revenue at 50,800,000,000 won and expenditure at 59,200,000,000 won, with most of the deficit to be covered by U. S. aid. The 1950-51 budget for North Korea estimated revenue at 25,200,000,000 won and expenditure at 26,700,000,000 won.

Korea's best mining regions are in the north. Leading products are coal, gold, silver, copper, tungsten ore, iron ore, graphite, lead, alum stone and pyrite ore.

Despite Japanese exploitation, considerable Korean forest areas remain, especially in the north. Most of the fishing companies were Japanese-owned before 1945.

TOPOGRAPHY AND CLIMATE. Korea's coast, with a rugged mountain range along the east, is fringed with more than a thousand islands. Several rivers are navigable for more than a hundred miles, including the Rakuto in the south, the Kan in the central region and the Yalu in the northwest, on the Manchurian border. The climate is about like that of the midwestern United States, except for a heavy rainy season in July and August. Annual rainfall is about forty inches.

Latvia

Area: 25,395 square miles.

Population (est. 1950): 2,100,000 (1940: Lettish, 75.5% [1950: 58%]; Russian, 12%; German, 3.2%; Polish, 2.5%; others, 6.8%).

Density per square mile: 78.5.

Principal cities (est. 1939): Riga, 393,211 (capital); (est. 1935): Liepaja, 57,098 (seaport).

Language: Latvian.

Religions (census 1930): Lutheran, 56.6%; Roman Catholic, 23.7%; Greek Orthodox, 8.9%; others, 10.8%.

Descended from ancient Aryan stock, the Latvians were early tribesmen who settled along the Baltic Sea and, lacking a central government, fell an easy prey to more powerful peoples. The German Teutonic Knights first conquered them in 1158 and ruled the area as two states—Livonia and Courland. Poland conquered the territory in 1562 and ruled until 1795 in Courland; control of Livonia was disputed between Sweden and Poland from 1562 to 1629. Sweden controlled Livonia from 1629 to 1721. Russia took over Livonia in the latter year, and Courland after the third par-

tion of Poland in 1795. From that time until 1918, the Latvians remained Russian subjects, although they preserved their language, customs and folklore. The Russian Revolution of 1917 gave them their opportunity for freedom, and the Latvian Republic was proclaimed on Nov. 18, 1918.

The republic lasted little more than 20 years. It was occupied by Russian troops in 1939 and incorporated into the U.S.S.R. In 1940, German armies occupied the nation from 1941 to 1943-44, when they were driven out by the Russians. Most countries, including the U. S., have refused to recognize the Soviet annexation of Latvia.

Lebanon (Republic)

Area: 3,475 square miles.

Population (est. Dec. 31, 1951): 1,303,940 (Arabian, Armenian, Circassian, Turk).

Density per square mile: 375.2.

President: Sheikh Bishara el Khoury.

Prime Minister: Abdullah Yafi.

Principal cities (est. 1949): Beirut, 400,000 (capital, chief port); Tripoli, 100,000 (oil pipe-line terminus).

Monetary unit: Lebanese pound (£L).

Languages: Arabic, French.

Religions: Maronite, Greek Orthodox, Greek Catholic, Mohammedan.

HISTORY. Smaller than Connecticut, Lebanon lies at the eastern end of the Mediterranean, between Israel and Syria. In ancient times it was the mountainous hinterland of the Phoenician coast towns. From the 7th to the 11th centuries there infiltrated into southern Lebanon the heretics of Islam who finally coalesced into the Druse community.

In the 19th century the Turkish Sultanate encouraged the Druses to wage civil war against the Christian Maronites. After a massacre of 2,500 Christians in 1860, Lebanon was occupied by the French for a year. From 1864 to 1914, a Christian military government ruled the area under nominal Turkish sovereignty. After World War I, France received a League of Nations mandate over Syria and Lebanon. The French drew a Lebanese border in 1920 to offset predominantly Moslem Syria and proclaimed the area a republic under French control on May 23, 1926.

Vichy forces controlled Lebanon after the fall of France in 1940, but the Allies replaced them by July 14, 1941. Despite Syrian objections, the French permitted Lebanon to declare its complete independence on Nov. 26, 1941. Lebanon joined the Arab League and took part in the invasion of Palestine on May 15, 1948.

GOVERNMENT. The modern Lebanese republic is governed by a president elected by parliament, for a six-year term, and a cabinet of ministers appointed by the president, but responsible to parliament, which has 55 members. An independent

army has been formed, based on a cadre of native *troupes spéciales*, formerly part of the French army in the Levant. The last French troops were evacuated late in 1946.

SOCIAL AND ECONOMIC CONDITIONS. In 1949, there were 188,702 students attending 1,821 state, Moslem, Christian, private, French, American and British schools. Beirut has two universities. Christians are in the majority in Lebanon.

Lebanon produces tobacco, olives, grapes and other fruits, wheat and silk. Manufacturing is confined mainly to local consumers' goods. The silk industry is important in Beirut and Tripoli; cocoon production averages about 6,000 tons annually. Tobacco manufacturing is a government monopoly. An oil refinery was opened at Tripoli in 1950.

The customs union with Syria was dissolved in March 1950. Exports in 1951 totaled £L98,000,000; imports, £L321,000,000. Leading customers were the U. S. (23%), Syria (22%) and Egypt (10%); leading suppliers, Syria (18%), the U. S. (17%) and France (12%). The leading exports were wool (22%) and fruits (10%).

A rail line links Beirut with Damascus and Syria. Another, built in World War II by Allied engineers, runs from Tripoli to the Israeli border, and is part of a line from Cairo to Istanbul, via Haifa. One of the oil pipelines from the Kirkuk field in Iraq terminates at Tripoli; the trans-Arabian pipeline from Saudi Arabia ends at Sldon.

The 1952 budget balanced revenue and expenditure at £L94,250,000. There is no public debt.

Iron ore deposits are worked in the south, and building stone and marble are plentiful. The country also has thick deposits of inferior lignite coal.

TOPOGRAPHY AND CLIMATE. The topography is varied. There is a narrow coastal plain, and the steep Lebanon Mountains reach heights of approximately 10,000 feet. There are no large streams. Lebanon has hot dry summers (about 80° in Beirut) and cool rainy winters (50°-60° in January).

Liberia (Republic)

Area: c.43,000 square miles.

Population (est. 1949): 1,600,000 (Native Negro, 99%; American Negro, .8%; white, .1%; others, .1%).

Density per square mile: c.37.2.

President: William V. S. Tubman.

Principal city: Monrovia (est. pop. 100,000; capital and chief port).

Monetary unit: U. S. dollar.

Languages: English (official), native tongues.

Religion: Protestant Christian (official); Mohammedan, Catholic, Pagan.

HISTORY. The history of Liberia, Africa's only republic, dates from 1816, when the American Colonization Society received a charter from the U. S. Congress, authorizing it to send emancipated Negro slaves to the west African coast.

The first settlers, who were led by Jehudi Ashmun, landed in 1822 at Cape Mesurado near the present site of Monrovia. White governors, named by the society, administered Liberia until 1841. On July 26, 1847, independence was proclaimed, and the first president was Joseph J. Roberts, a Virginia octoroon of considerable ability.

After 1920 considerable progress was made toward opening Liberia's interior, but even today only about 100,000 of its inhabitants are regarded as civilized, and lack of transportation hampers development of the heavily forested inland. In 1942, a U. S.-Liberian agreement admitted U. S. troops to build strategic airports.

In 1944 an agreement provided for permanent U. S. military and naval bases.

GOVERNMENT. The government is modeled after that of the United States. The president and vice president are popularly elected for eight years. The 27-member House of Representatives is elected for four years and the ten-member Senate for six years. Suffrage is extended only to landowners over 21 who are of Negro blood, but a 1946 constitutional amendment provides for the seating in the House of an aborigine from each province in the hinterland. Liberia's army of about 4,000 men is organized on a militia basis.

SOCIAL AND ECONOMIC CONDITIONS. Education, compulsory in theory, is conducted in 200 schools, about half state and half mission. Attendance is about 16,000. There are six state high schools, a normal school, a state college and the Booker T. Washington Industrial and Agricultural Institute, supported by U. S. donations.

The English-speaking descendants of U. S. Negroes, known as Americo-Liberians, are the intellectual and ruling class. The aborigines, virtually all uncivilized, are divided into some 28 tribes speaking different dialects. Some are Moslems or pagans. Christians include Anglicans, Methodists, Catholics, Baptists and Presbyterians. There are a number of foreign missions.

Agriculture, on a crude level, is the principal means of livelihood for the tribal Liberians, who raise coffee, rice, sugar cane and cassava. Native manufacturing is nonexistent except for small industry, and the country's only big enterprise is the million-acre concession granted in 1925 to the Firestone Plantations Company for rubber cultivation. Exports (1951) were 39,939 short tons. A large iron ore concession has been developed in the Bomi Hills area by Republic Steel Corp.; the first

shipment left Monrovia in June 1951. Exports in 1951 totaled 166,396 short tons.

Most of the trade is with the United States. Exports in 1951 totaled \$52,549,457, including rubber (88%), palm kernels (8%) and iron ore (1.4%). Imports were \$18,135,897, mostly textiles, machinery, vehicles, petroleum and food. The U. S. supplied 67% of the imports and took 92% of the exports.

Liberia's first railroad, a 43-mile narrow-gauge line from Monrovia to the Bomi Hills iron-ore concession, began operation in 1951. Coastwise and international air service is supplied by Pan American Airways. Interior travel is still largely by foot with native bearers, but important progress in road construction was made during and after World War II. There are no harbors except a port and naval base completed in 1947 at Monrovia, with U. S. assistance, at a cost of more than \$19,000,000.

Finances are under U. S. supervision. The country's recent fiscal record is excellent. Actual revenue in 1951 was \$12,830,685; expenditure, \$10,444,828. The external debt on Aug. 31, 1951, was only \$611,000; there was no internal debt.

TOPOGRAPHY AND CLIMATE. Liberia, about the size of Ohio, has a 350-mile frontage on the west coast of Africa, between the Ivory Coast and Sierra Leone. Its only well developed area is a low coastal strip running inland about seven miles. Beyond that is a low plateau, some of it mountainous, traversed by many rivers, of which the Cavalla (Kavalli) and the St. Paul's are the most important. The climate is tropical throughout, with rainfall up to 150 inches a year on the coast.

Libya (Kingdom)

Area: 679,340 square miles.

Population (est. 1950): c. 1,191,000 (Berber, with Arab admixture, 93%; Italian, 5%; Jewish, 2%).

Density per square mile: 1.8.

Ruler: King Idris I.

Prime Minister: Mahmud Bey Muntasser.

Principal cities (est. 1950): Tripoli, 144,616 (joint capital); Misurata, 70,000 (coastal city); Bengasi, 59,087 (joint capital).

Monetary unit: Libyan pound (£L).

Languages: Arabic, Italian.

Religions: Mohammedan (93%), Christian (5%), Jewish (2%).

HISTORY AND GOVERNMENT. Libya, stretching along the northern coast of Africa between Tunisia and Egypt, was a part of the Turkish dominions from the 16th century until 1911. Following the outbreak of hostilities between Italy and Turkey in the latter year, Italian troops occupied Tripoli; Italian sovereignty was recognized the next year by the Treaty of

Ouchy. In 1934 the area was organized into four provinces—Bengasi, Derna, Misurata and Tripolitania—which were incorporated in 1939 into Metropolitan Italy, and a military territory in the south, Libyan Sahara (465,362 sq. mi.). Libya was the scene of much desert fighting during World War II. After the fall of Tripoli on Jan. 23, 1943, it came under Allied administration. The U. N. General Assembly voted on Nov. 21, 1949, that Libya should become independent by 1952, and a U. N. commissioner, assisted by an advisory council, was appointed to prepare the way for self-government.

Following the adoption by the constituent assembly of a constitution, the independence of the country was proclaimed by King Idris I on Dec. 24, 1951.

Under the constitution, Libya is a hereditary monarchy with a federal form of government. Tripolitania, Cyrenaica and the Fezzan are the constituent provinces. It has a bicameral parliament consisting of a senate of 24 members, half named by the king and half by the 3 provincial legislatures, and a house of representatives elected on a proportional representation basis according to population. The cabinet, headed by the prime minister, is responsible to the federal parliament.

The ruler, King Idris I, hereditary head of the powerful Senussi sect in Cyrenaica, was born in 1890.

SOCIAL AND ECONOMIC CONDITIONS. Tripolitania, with one-sixth the area, has 70% of the population. About 76% of the population is rural and about 45% of that is nomadic or seminomadic. A large proportion of the area is desert.

Animal husbandry is the basic economic activity, and there are considerable numbers of cattle, sheep, camels and goats. Agriculture is possible only in the Mediterranean coastal region, where dates, olives, citrus fruit, wheat and barley are grown, and in oases in the Fezzan and elsewhere; here the principal product is dates. Sponge and tunny fisheries are carried on off the coast. Industry is undeveloped.

Important exports include wool, hides, skins, cattle, horses, sponges and esparto grass.

Railroads total 242 miles. A road extends along the coast. The principal means of communication inland are the caravans, which follow traditional routes.

Libya has no known mineral deposits and no exploitable forests.

TOPOGRAPHY AND CLIMATE. The area has three natural divisions from the coast inland—the Mediterranean coastland, the sub-desert, and the desert.

Winters are cool and summers warm along the coast, and hotter in the interior.

Bengasi has an average temperature of 55° in January and 78° in July.

Liechtenstein (Principality)

Area: 65 square miles.

Population (census 1950): 13,757 (mostly German).

Density per square mile: 211.6.

Ruler: Prince Franz Joseph II.

Chief of Government: Alexander Frick.

Principal city (census 1950): Vaduz, 2,735 (capital).

Monetary unit: Swiss franc.

Language: German.

Religion: Roman Catholic.

Tiny Liechtenstein lies on the east bank of the Rhine, just south of Lake Constance, between Austria and Switzerland. It abolished its army in 1868 and has managed to stay neutral and undamaged in all European wars since that date.

Founded in 1719, Liechtenstein was made up of the Lordships of Vaduz and Schellenburg, immediate fiefs of the Holy Roman Empire. In 1806 it joined the Rhine Federation and in 1815 the German Confederation. It became independent in 1866. Franz Joseph II, the reigning prince, was born in 1906, and succeeded his great uncle, Franz I, in 1938. In 1943 he married Countess Gina Wilczek, of Austria.

The constitution of 1921 provided for a legislature, the *Landtag*, of 15 members elected by direct, universal suffrage. Liechtenstein adopted Swiss currency in 1921, and has been part of the Swiss Customs Union since 1924. Its foreign trade statistics are included in those of Switzerland, which also administers the country's telegraph and postal service.

Wheat, wine and fruit are the chief products. There are small manufactures of cotton, leather and pottery. The country's taxes are quite painless. For many years it had no debt; but in Dec. 1951, the debt was 7,600,600 fr. Revenue in 1952 was estimated at 5,540,500 fr.; expenditure, at 5,560,600 fr. In 1952 there were 16 elementary and secondary schools, with total enrollment of 1,929.

Liechtenstein's area includes low valley land and upland peaks—Falkais at 8,401 feet, and Naafkopf, 8,432 feet. The chief mineral product is marble.

Lithuania

Area: 22,958 square miles.

Population (est. 1950): 3,000,000 (1940: Lithuanian, 81% [1950: 55%]; German, 4%; Polish, 3%; Russian, 2%; others, 10%).

Density per square mile: 125.4.

Principal cities (est. 1942): Vilnius (Vilna), 182,000 (capital); (est. 1941) Kaunas, 120,000 (river port).

Language: Lithuanian.

Religions: Roman Catholic, 80%; Lutheran, 5.5%; others, 14.5%.

Southernmost of the three Baltic states, Lithuania in the middle ages was a grand duchy joined to Poland through royal marriage. Poles and Lithuanians merged forces to defeat the Teutonic Knights of Germany at Tannenberg in 1410 and extended their power far into Russian territory. In 1795, however, following the third partition of Poland, Lithuania fell into Russian hands and did not gain its independence until 1918, toward the end of World War I.

The republic was occupied by the U.S.S.R. in 1939 and annexed outright the following year. From 1940 to 1944 it was occupied by German troops and then was retaken by the Soviet Union. Western countries, including the U. S., have not recognized the Russian annexation.

Luxemburg (Grand Duchy)

Area: 1,010 square miles.

Population (est. Dec. 31, 1951): 300,000 (Luxemburgian, French, German).

Density per square mile: 297.0.

Ruler: Grand Duchess Charlotte.

Premier: Pierre Dupong.

Principal city (census 1947): Luxemburg, 61,590* (capital; iron and steel).

Monetary unit: Luxemburg franc.

Languages: Luxemburgian, French, German.

Religion: Mainly Roman Catholic.

* Population actually present at time of census.

HISTORY. Luxemburg is a small buffer state between France, Germany and Belgium. Invaded and occupied in both World Wars I and II despite the fact that its neutrality was guaranteed, Luxemburg suffered most in the latter war, when the Nazis deported several thousand natives as slave labor.

Sigefroi, Count of Ardennes, an offspring of Charlemagne, was Luxemburg's first sovereign ruler. In 1066 the country came under the rule of the House of Luxemburg. From the 15th to the 18th centuries, Spain and Austria held it in turn. The Congress of Vienna in 1815 made it a Grand Duchy and gave it to William I, King of the Netherlands. In 1839 the Treaty of London ceded the western part of Luxemburg to Belgium.

After the Nazi invasion on May 10, 1940, the government fled the country, returning in 1944 after Allied troops had liberated it. A claim for 225 square miles of German territory was made in 1946. In 1948 the grand duchy abandoned its policy of perpetual unarmed neutrality and joined the Western European Union; in April, 1949, it adhered to the North Atlantic Pact.

GOVERNMENT. Luxemburg is a constitutional monarchy with the crown hereditary

in the House of Nassau. The sovereign, Grand Duchess Charlotte, was born Jan. 23, 1896. The heir to the throne is Prince Jean, born Jan. 5, 1921.

The constitution of 1868, as amended in 1919, provides for democratic government through a chamber of deputies of 51 members, popularly elected for six-year terms. The constitution leaves to the sovereign the right to organize the government, which consists of a minister of state who is president of the government (premier) and at least 3 other ministers. There is also a council of state of 15 members, chosen for life by the sovereign.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory for all children between the ages of 6 and 13. The common or idiomatic language is *letzeburgesch*; German and French are also spoken. Labor unions are strongly organized into a single large federation.

Although the soil is not very fertile, agriculture is prosperous. Principal crops are potatoes, oats, wheat, rye and grapes. Wine production, 1951, was 2,373,500 U. S. gal.

The mining and metallurgical industries, based on iron ore found in the south, are the most important. In 1951, an average of 27 blast furnaces employed 18,488 workers and produced 3,157,069 metric tons of pig iron. Production of steel ingots was 3,077,021 tons. Electrical energy produced in 1951 totaled 810,000,000 kwh. Other industries include brewing, sparkling wine, leather, textiles and cement.

Normally, Luxemburg has little unemployment, almost no illiteracy and such low taxes that many foreign holding companies maintain legal headquarters there to escape high taxation in other countries.

By a customs union between Belgium and Luxemburg which came into force on May 1, 1922, to last for 50 years, customs frontiers between the two countries were abolished. On Jan. 1, 1948, an economic union with Belgium and the Netherlands (Benelux) came into existence. Luxemburg's foreign trade figures are included in those of Belgium and no separate statistics are available; exports consist chiefly of iron and steel products.

Transportation facilities in 1949 included 340 miles of railway and 2,673 miles of highway, of which 1,320 miles were improved.

The 1952 budget forecast revenue at 3,783,200,000 fr. and expenditure at 3,856,700,000 fr. The consolidated debt on Dec. 31, 1951, was 2,919,300,000 fr.; the floating debt, 4,697,200,000 fr.

Luxemburg's prosperity depends largely on its rich iron ore mines, which produced 5,625,119 metric tons in 1951; exports were 1,968,138 tons.

Mexico (Republic)

(Estados Unidos Mexicanos)

Area: 753,061 square miles.
Population (census 1950*): 25,367,802 (mestizo, 55%; Indian, 29%; white, 15%; others, 1%).

Density per square mile: 33.5.

President: Adolfo Ruiz Cortines.

Principal cities (census 1950*): Mexico City, 2,527,328 (capital); Monterrey, 339,634 (metallic industries); Guadalajara, 337,000 (manufacturing); Puebla, 229,676 (cotton textiles); San Luis Potosí, 156,324 (mineral smelting); Mérida, 155,399 (sisal).

Monetary unit: Peso.

Language: Spanish, 86%; Indian, 14%.

Religion: Predominantly Roman Catholic.

* Preliminary figures.

HISTORY. Mexico is four times the size of Spain, the source of its cultural heritage, and one-fourth the size of the United States, the source of its modern industrial trend. In recent times the nation has steered moderately leftward in deference to the needs of its millions of peasants.

Mexico's early history is shrouded in mystery, but at least two highly civilized races—the Mayas and later the Toltecs—preceded the wealthy Aztec empire conquered in 1519-21 by the Spanish under Hernando Cortez. Spain ruled for the next 300 years until 1810 (the date was Sept. 16 and is now celebrated as Independence Day), when the Mexicans first revolted. They continued the struggle and finally won independence in 1821 by the Treaty of Córdoba.

Turbulent years followed. From 1821 to the first presidency of Porfirio Díaz in 1877, there were two emperors, several dictators and enough presidents and provisional executives to make a new government on the average of every nine months. Mexico lost Texas (1836), and after defeat in the war with the United States (1846-48) it lost the area comprising the present states of California, Nevada and Utah, most of Arizona and New Mexico, and parts of Wyoming and Colorado.

In 1855 the Indian patriot Benito Juárez began a series of liberal reforms including the disestablishment of the Catholic Church, which had acquired vast property. A subsequent civil war was interrupted by the French invasion of Mexico (1861), the crowning of Maximilian of Austria as emperor (1864), and then his overthrow and execution by forces under Juárez, who again became president in 1867.

During the rule of the dictator Porfirio Díaz (1877-80 and 1884-1911) the country was freed from political strife, made substantial economic progress, and gained a respected position in foreign affairs. But Díaz' reactionary land policy led to revolution and his resignation in 1911. The next few years were marked by bloody po-

litical-military strife, and trouble with the United States culminating in the punitive expedition into northern Mexico (1916-17) in unsuccessful pursuit of the bandit-politician Pancho Villa. President Venustiano Carranza, who had shown pro-German sympathy in World War I, was assassinated in 1920, and was succeeded by General Alvaro Obregón.

President Plutarco Elías Calles (1924-28) largely abandoned Obregón's reforms, and Obregón, re-elected in 1928 on a radical agrarian and anti-clerical platform, was assassinated by a religious fanatic before he could take office. There followed a series of Calles puppets who ruthlessly suppressed labor and farm organizations. General Lázaro Cárdenas (1934-40), backed by the National Revolutionary Party (PRI), began a socialistic program of land distribution to peasants, government seizure of foreign-owned oil lands, and broad labor reforms. General Manuel Avila Camacho, president during World War II, co-operated closely with the United Nations and followed Cárdenas' policy at home.

In July, 1946, Miguel Alemán was elected president, backed by the Avila Camacho administration and the PRI. Alemán continued the internal policy initiated by Cárdenas; his administration was marked by continued cordial relations with the United States. Adolfo Ruiz Cortines, the administration candidate, was elected to succeed him in quiet elections held in July 1952.

GOVERNMENT. The president, popularly elected for six years and ineligible to succeed himself, governs with a cabinet of his appointed ministers. The Federal Congress has two houses—the 147-member Chamber of Deputies, elected for three years (one for each 150,000 population) and the 60-member Senate, elected for six years with two senators from each of the 29 states and two from the Federal District (Mexico City). All married male citizens at least 18, and all single male citizens at least 21 are eligible to vote.

Each of the 29 states has considerable autonomy, with a popularly-elected governor, legislature and local judiciary. The president appoints the governors of the two Federal territories, and the governing body of the Federal District.

Military service is compulsory, and the president holds supreme command of the armed forces, through the Secretary of War. The national army, greatly modernized during World War II, numbered about 56,000 men in 1951; the air force had 270 planes and two U. S.-trained squadrons. The small navy had 3 gunboats, 4 frigates, 1 armed transport and 22 coast guard vessels in 1951.

EDUCATION. Illiteracy is one of Mexico's big problems, and the government is try-

ing hard to reduce the rate, estimated at 21 per cent in 1950, as against 60 per cent in 1930. Education is free, compulsory from 6 to 16, separated from the church, and under Federal control. There were 29,036 primary schools in 1950 with an enrollment of 3,986,428. In 1949, 466 general secondary schools had 80,598 students. The 12 universities had 35,602 students; about 22,000 attended the University of Mexico at Mexico City.

RELIGION. About 90 per cent of Mexicans are Roman Catholics, but all religions are tolerated. The 1857 Constitution separated church and state. The church cannot acquire property, and its present holdings are deemed to belong to the state. Priests, who must be Mexican-born, cannot take part in politics.

GOVERNMENT CONTROL. Federal control of the national economy is increasing steadily in Mexico. The government regulates farm production, fixes prices, and controls both exports and imports. Since 1915 it has consistently broken up large estates for distribution to the poor on state-owned communal farms. In 1941, title to the land began to pass to the peasants themselves. The right to strike, maximum hours, minimum wages and a social security system—all these have been established by the government.

AGRICULTURE. Primitive agricultural methods are steadily giving way to modern practices. More than 17,000,000 acres are under cultivation. About 2,775,000 acres are irrigated, but the eventual total of watered land is expected to be 12,000,000 acres. About 10 per cent of the annual budget is earmarked for irrigation projects. Approximately half the arable land is planted to corn—a staple item in the national diet. The Yucatán peninsula, at the southern end of the Gulf of Mexico, raises more than half of the world supply of sisal hemp (104,056 tons in 1949).

Production of principal crops was as follows in 1950 (metric tons): wheat, 814,000; maize, 3,427,000; rice (rough), 152,000; beans, 323,371; barley, 160,000; coffee, 69,000; cotton, 253,000; (1949) cottonseed, 345,524; potatoes, 180,495; tobacco, 33,822. Sugar production totaled 703,000 tons in 1950.

Stockraising is important on non-arable land. Mexico's inventory of livestock in 1951 showed an estimated 14,600,000 cattle, 6,000,000 sheep, and 6,000,000 hogs.

A rather serious epidemic of hoof-and-mouth disease broke out among Mexican cattle in 1947. A joint U. S.-Mexican campaign to destroy all diseased and exposed cattle led to peasant opposition amounting in some cases to insurrection, but the campaign continued.

INDUSTRY. Considering its cheap labor,

abundant raw materials and available water power, Mexico is still industrially backward. However, steady expansion is taking place.

Total value of industrial production in 1948 was 3,920,817,000 pesos, of which cotton yarn and cloth accounted for 21.0 per cent; sugar, 12.4; flour, 7.7; beer, 7.5; iron and steel, 6.3; soap, 5.8; and cigars and cigarettes, 5.2. Other products were rubber manufactures, vegetable oils, paper, wool, silk and rayon yarn and cloth, cement, shoes and glass. By 1950, the total value of production had risen to 4,778,354,000 pesos. In 1951, 202,800 metric tons of pig iron and 468,000 tons of steel were produced.

TRADE. Foreign trade data, in millions of pesos, are as follows:

	1949	1950	1951
Exports	3,389	4,027	4,948
Imports	3,804	4,807	7,116

Chief exports in 1951 were lead, zinc, copper (22%), cotton (20%) and silver (4%). The U. S. took 70% of the exports and supplied 81% of the imports. Other leading customers were Germany, Britain, Guatemala and Canada. Leading imports included wheat, machinery, vehicles and iron and steel products.

MINERALS. Mexico is one of the richest mineral countries in the world. It outranks all other countries in silver production (1951: 43,796,723 troy oz.). Other minerals, with 1951 production, are gold, 393,420 oz.; lead, 221,967 short tons; zinc, 197,019 tons; copper, 60,511 tons; and antimony, 7,510 tons. A considerable variety of other industrial minerals is produced. The 1950 mineral value (excluding petroleum) was 2,003,323,831 pesos. Deposits of uranium are reported to exist.

Most of the Mexican mining properties are foreign-owned, and the industry is declining in relative importance. The oilfields, lying along the east coast, were seized by the government in 1938, but later the foreign owners were indemnified. There are 15 refineries with daily capacity of 250,000 barrels. Production in 1951 was 78,779,550 barrels, the largest since 1926. Reserves are limited.

FORESTS. Mexico's forests are of considerable importance. Timber produced in 1947 amounted to 398,315,352 bd. ft. of sawed lumber, 85,171,424 bd. ft. of rough-hewn lumber and 95,382,192 bd. ft. of logs (pine, oak, fir, mahogany, red and white cedar and primavera). Resins, turpentine and vegetable wax are also produced. Yucatán produces nearly all of the world's chicle, the juice of the sapodilla tree, used as the base of chewing gum. Chicle production in 1947-48 was 2,400 tons.

COMMUNICATIONS. Mexico has about 17,000 miles of railroad. There were over

14,000 miles of improved highway in 1952. The merchant fleet had 61 vessels (100 tons and over) aggregating 167,835 gross tons on June 30, 1951, according to *Lloyd's Register*. Veracruz and Tampico, on the Gulf of Mexico, are the most important ports. In 1950, airlines operating in Mexico flew 26,041,104 miles and carried 1,032,413 passengers.

Recent government financial data are as follows (in millions of pesos):

	1950*	1951†	1952†
Revenue	2,597.0	3,104.0	3,998.1
Expenditure	2,746.1	3,102.0	3,995.9

* Voted estimate. † Draft estimate.

The national debt amounted to 4,609,100,000 pesos on Dec. 31, 1950. The estimated national income in 1950 was \$3,445,086,000.

TOPOGRAPHY. Mexico is a great, high plateau, open to the north, with mountain chains on east and west and with ocean-front lowlands lying outside of them. It has two big spurs—the peninsula of Lower California which is mountainous, and the Yucatán peninsula, which is mostly a low plain. The eastern mountains are marked by high volcanoes, including Popocatepetl, 17,883 feet and not entirely extinct; Ixtaccihuatl, 17,338 feet; and the loftiest, Orizaba, 18,896 feet. None of Mexico's many short streams is navigable to any major extent.

CLIMATE. Partly in the torrid and partly in the north temperate zone, Mexico has three distinct climate regions. From the coasts inland to the plateau it is tropical, with temperatures sometimes topping 100°, but averaging from 77° to 82°. The plateau is sub-tropical with an average of 75°, and the mountains, over 6,000 feet, average 60°. On the east coast the annual rainfall sometimes reaches 100 inches, while in Lower California rain hardly ever falls. Rainfall on the plateau is 20 to 40 inches a year, comparable to that of the west central United States. In Mexico City the coldest months are December and January (about 55°); the warmest, April and May (65°). The wet season is from April to September.

Monaco (Principality)

Area: .59 square mile (375 acres).
Population (est. 1951): 20,000.
Density per square mile: 33,898.3.
Ruler: Prince Rainier III.
Principal cities (census 1946): Monaco, 1,854; La Condamine, 9,421; Monte Carlo, 7,967.
Monetary unit: French franc.
Language: French.
Religion: Roman Catholic.

A tiny, hilly wedge driven into the French Mediterranean coast nine miles east of Nice, Monaco is a little land of pleasure with a tourist business that runs

as high as 1,500,000 visitors a year. The home of world-famous Monte Carlo, a place of benign sun and balmy air, Monaco offers golf, tennis and bathing by day, and drinking, dining and gambling by night. Residents of Monaco are forbidden to enter the gaming rooms, but they have compensations. They pay no taxes, and most of them make good livings from the thriving tourist business.

Monaco, with its beautiful terraced hills and crags, had popular gaming tables as early as 1856. Five years later, a 50-year concession to operate the games was granted to François Blanc, of Bad Homburg. This concession passed into the hands of a private company in 1898. Government expenses are paid from the resultant revenue. The concession's annual license fee since 1936 has been £100,000.

The Phoenicians, and after them the Greeks, had a temple on the Monacan headland honoring Heracles. From *Monoi-kos*, the Greek surname for this mythological strong man, the principality took its name. After being independent for 800 years, Monaco was annexed to France in 1793 by the French Revolutionists, and was placed under Sardinia's protection in 1815. In 1861, it went under French guardianship but kept its independence.

Prince Albert of Monaco gave the principality a constitution in 1911, creating a national council of 21 members popularly elected for four years. The government is under a ministry, acting on the prince's authority. The ruler, Prince Rainier III, born May 31, 1923, succeeded his grandfather, Louis II, on the latter's death, May 9, 1949.

Mongolian People's Republic (Outer Mongolia) (Republic)

Area: 580,158 square miles.
Population (est. 1950): 900,000 (Mongol, except for about 100,000 Russians and 50,000 Chinese).

Density per square mile: 1.55.
Chairman of Presidium: Bumatsende.
Prime Minister: Tse Den-bal.
Principal city (est. 1951): Ulan Bator
Khoto (Urga), 80,000 (capital).
Monetary unit: Tugherik.
Languages: Mongolian, Russian.
Religion: Lama-Buddhism.

HISTORY AND GOVERNMENT. The Mongolian People's Republic, known also as Outer Mongolia, is a Russian satellite that measures more than twice the area of Texas. It contains the original homeland of the historic Mongols, whose power reached its zenith during the 13th century under Kublai Khan. The area accepted Manchu rule in 1689, but after the Chinese Revolution of 1911 and the fall of the Manchus in 1912, the northern Mongol princes expelled the Chinese officials and

declared independence under the Khutukhtu or "Living Buddha." In 1921, Soviet troops entered the country and facilitated the establishment of a republic by Mongolian revolutionaries in 1924 after the death of the last Living Buddha. China, meanwhile, continued to claim Outer Mongolia but was unable to back the claim with any strength. Outer Mongolia significantly signed a military alliance with Russia in 1936 and a treaty of friendship in 1946.

Under the Chinese-Russian Treaty of 1945, China agreed to give up Outer Mongolia, provided that a plebiscite on independence be held first. The subsequent vote was announced as 483,291 to 0, in favor of independence. On Jan. 5, 1946, China recognized Outer Mongolia's independence.

The government of the republic is strikingly similar to the Soviet system. The Great Hural or Huraldan (parliament) is elected by universal suffrage, meets at least once in three years and picks 30 members to act as an executive committee—the Little Hural—which in turn selects a presidium of seven members as an interim body. A cabinet of ten ministers appointed by the Little Hural governs the country. The only political party is the Mongol People's Revolutionary Party, formed in 1921 around a nucleus of young Soviet-trained Mongols. The army of several thousand is Russian-trained and equipped.

SOCIAL AND ECONOMIC CONDITIONS. A number of young Mongols are regularly sent to the U.S.S.R. for technical training. The capital, Ulan Bator Khoto, former holy city of the Mongols, has a radio station, several newspapers published in Mongolian, high schools, a university, medical schools, and a military school with Soviet advisers. In 1950, there were said to be 412 primary and secondary schools, 14 technical schools and 3 higher-education institutions in the republic. In 1947, there were 90 hospitals and 234 medical centers.

The country is largely pastoral. There are few areas suitable for crop growing, but some millet, rye and wheat are produced. Most of the people are essentially nomadic or seminomadic; flocks and herds remain the chief source of wealth. In 1951, livestock were said to number 31,000,000, mostly sheep.

There are a few industrial enterprises, including a machinery factory, a brick factory and an electric power station all located at Ulan Bator Khoto; power plants, printing shops and automobile repair shops have also been established. All land, natural resources, factories, mines, hay-making stations and public utilities are nationalized.

Foreign trade, a state monopoly, is car-

ried on entirely with the Soviet Union. The only available trade statistics (1936) indicated exports valued at \$5,892,000 and imports valued at \$9,251,000. Leading exports are livestock, wool, hides, animal hair, meat and furs.

Although the old caravan routes are still used, and transportation is mainly by horse, camel or ox carts, a number of motorable roads exists (1938: 2,477 mi.) including a highway from Ulan Bator Khoto to the Siberian border town of Kyakhta. An airline also functions between Ulan Bator Khoto and Ulan Ude in the Buryat Mongol Autonomous S.S.R. which borders Mongolia on the north. A short rail line connects Ulan Bator Khoto with the coal fields, and a spur from the Trans-Siberian runs to the capital.

Reserves of 500,000,000 tons of coal are said to exist in the Nalaikha field near Ulan Bator Khoto. Production in 1938 was 71,650 tons. Some gold is mined. Deposits of antimony, copper, iron ore, lead graphite, mercury, sulfur and silver exist.

TOPOGRAPHY AND CLIMATE. The productive regions of Outer Mongolia—a tableland ranging from 3,000 to 5,000 feet in elevation—are in the north, which is well drained by numerous rivers, including the Kerulen, Tola, Orkhon and Selenga. The climate is continental, with hot summers and cold winters. Mean temperature at Ulan Bator Khoto is 15° in January and 64° in July. Rainfall is light throughout the country, and almost negligible in the Gobi Desert in the southeast.

Morocco (Protectorate)

(Maroc)

Area: 161,691 square miles (French 153,870; Spanish 7,589; Tangier 232).

Population (est. 1950): French Morocco, 8,410,000; Spanish Morocco, 1,398,000; Tangier, 111,000.

Sultan: Sidi Mohammed ben Youssef.

French Resident General: Augustin Guillaume.

Spanish High Commissioner: Lt. Gen. Rafael García Valino.

Administrator of Tangier: José Luiz Archer (Portugal).

Principal cities (census 1947): Casablanca, 551,222 (chief seaport); Marrakesh, 238,277 (trading center); Fez, 200,946 (commercial center); Rabat, 161,946 (French administrative center).

Monetary units: French franc, Spanish peseta.

Languages: Arabic, French, Spanish.

Religions: Chiefly Mohammedan.

HISTORY. Morocco, about the size of California, is just south of Spain across the Strait of Gibraltar and looks out on the Atlantic from the northwest shoulder of Africa. It was once the home of the Berbers, who helped the Arabs invade Spain in A.D. 711 and then revolted against

them and gradually won control of large areas of Spain for a time after 739.

The country was ruled successively by various native dynasties and maintained regular commercial relations with Europe, even during the 17th and 18th centuries when it was the headquarters of the famous Sallî pirates. In the 19th century, clashes with the French and Spanish became frequent. Finally, in 1904, France and Spain divided Morocco into zones of French and Spanish influence, and these were established as formal protectorates in 1912. In the same year a revolt at Fez was followed by the appointment of General (later Marshal) Louis Lyautey as governor general. His administration, lasting until 1925 except for a brief period during World War I, was remarkable for its efficiency and far-sighted policies.

Meanwhile, Morocco had become the object of big-power rivalry, which almost led to a European war in 1905 when Germany attempted to gain a foothold in the rich mineral country. By terms of the Algeiras Conference (1906), Morocco was internationalized economically and France's privileges were limited. War again seemed imminent in 1911, when Germany dispatched a warship to Agadir in an evident attempt to intimidate France. Again the dispute was settled, however, and this time Germany recognized France's right to establish a protectorate over Morocco.

The Tangier Statute, concluded by Britain, France and Spain in 1923, created an international zone at the port of Tangier, permanently neutralized and demilitarized. In World War II Spain occupied the zone, ostensibly to insure order, but was forced to withdraw in 1945, and the international rule was re-established.

The French zone in Morocco was under the Vichy government of France during part of World War II, but three days after the Allied landing in North Africa in 1942 it came under Allied control.

GOVERNMENT. Morocco nominally is an absolute monarchy under a sultan, but actually the French resident general at Rabat and the Spanish high commissioner at Tetuan direct Moroccan policies to a large extent. The sultan lives in the French zone, and delegates authority to representatives in the Spanish zone and Tangier.

Tangier is governed by an international administration and a council of control composed of the consuls general of the signatories to the Act of Algeiras.

SOCIAL AND ECONOMIC CONDITIONS. Most of the natives are illiterate; some get rudimentary education in Koranic schools or state-maintained institutions. Education is provided in both zones for Europeans.

The natives are Berbers, roughly divided by customs and way of life into three groups—the Riff group along the coast, the central or Berber group in the mid-Atlas Mountains, and the southern or Chleuh in the high Atlas and the Sus. There is a large Jewish population. Most of the Europeans live in the cities.

Morocco is essentially agricultural. In the French zone, about 25,000,000 acres are arable, with 1951 production of wheat coming to 741,000 metric tons; of barley, 1,470,000 tons. Corn, beans, peas, hemp, sorghum, citrus fruits and dates also are raised. Production of olives in 1951 was 100,000 tons. In 1950, there were 10,375,000 sheep and 1,942,000 cattle.

In the Spanish zone, agriculture is largely undeveloped, but it has potential importance. In 1950, 135,000 metric tons of barley were produced; wheat, maize and sorghum crops are also important.

Manufacturing industries introduced by Europeans, mostly small, produce chemicals, flour, leather, stone, beverages and textiles. Native industries include carpet weaving and making Turkish slippers.

Exports from the French zone in 1951 totaled 86,172,400,000 fr.; imports, 159,698,000,000 fr. Chief exports are phosphate, fish, citrus fruit and vegetables. Imports include cotton cloth, sugar, vehicles and tea. Exports from the Spanish zone in 1948 totaled 206,442,000 pesetas and imports 572,422,000 pesetas. A large proportion of the trade is carried on with Spain. Major exports are iron ore, fish and grain; imports include flour, sugar, tea, wine and textiles. Tangier's exports in 1951 were 1,970,401,000 fr.; imports were 11,468,108,000 fr.

Railroads in 1948 totaled 1,990 miles in the French zone and 75 miles (standard gauge) in the Spanish zone. Highway mileage in the same year was approximately 5,700 in the French zone, about 500 in the Spanish zone and 65 in Tangier. Casa-blanca, which handles 80 per cent of the French zone trade, has perhaps the world's largest artificial port.

The importance of Tangier, once Morocco's first port, has declined under the international regime, and its harbor works are obsolete.

The ordinary budget for the French zone in 1951 balanced at 37,783,000,000 fr.; extraordinary expenditure was estimated at 26,200,000,000 fr. The budget for the Spanish zone in 1952-53 balanced at 878,844,383 pesetas. The 1952 ordinary budget of the international administration at Tangier balanced at 1,577,955,000 fr.; the extraordinary budget, at 476,625,000 fr. Customs receipts provide most of the revenue.

Exploitation of French Morocco's almost inexhaustible deposits of phosphate is a

state monopoly and produced a total of 4,599,000 metric tons in 1951. Other major minerals are coal, cobalt, iron ore, manganese ore, molybdenum, tin, zinc and lead. Iron ore (1950: 950,900 metric tons) is the chief mineral of the Spanish zone; others are antimony and manganese.

Cork, gums and tannins are the principal forest products in the French zone, mostly from the northern Atlas slopes; in the Spanish zone, cork, wax and charcoal are leading products. Waters off both coasts provide rich fisheries.

TOPOGRAPHY AND CLIMATE. On the Atlantic coast, there is a fertile plain; the Mediterranean coast is mountainous, making most of the Spanish zone a rugged area. The Atlas Mountains, running north-eastward from the south to the Algerian frontier, average 11,000 feet in elevation.

Morocco's climate is essentially Mediterranean, modified by the Atlantic. On the Atlantic coast the temperatures are relatively cool (at Mogador, 61.5° in January and 72.3° in August). Inland the climate is more continental, with colder winters and hotter summers (at Fez, 50° in January and 80.6° in August). The rainy season is in October–November and April–May. Snow falls at altitudes above 3,000 feet.

Nepal (Military Oligarchy)

Area: c.54,000 square miles.

Population (est. 1948): 7,000,000 (Gurkha [predominant], Magar, Gurung, Bhotia [Tibetan], Newar).

Density per square mile: c.129.6.

Ruler: Tribhubana Bir Bikram.

Principal city and capital: Katmandu (estimated population, 108,800).

Monetary unit: Nepalese rupee.

Languages: Parbatia, Gubharius, Tibetan.

Religions: Hinduism, Buddhism.

HISTORY. A landlocked country about the size of Iowa, lying between the Republic of India and Tibet, Nepal has two great distinctions. It contains Mt. Everest, 29,141 feet high, the tallest measured mountain in the world. And it produces some of the toughest fighting men in the world—the Gurkhas.

Led by Rajah Prithwi Narayana, the Gurkhas invaded Nepal from India in 1768 and conquered it. A commercial treaty was signed with Britain in 1792, and in 1816, after more than a year's hostilities, the Nepalese agreed to allow British residents to live in Katmandu, the capital. In 1923 Britain recognized the absolute independence of Nepal. The United States and Nepal signed a treaty of friendship and trade on April 25, 1947. Plans for extensive social and political reforms were announced in the same year, but the prime minister resigned soon thereafter. King Tribhubana

was deposed on Nov. 7, 1950, but was returned to the throne with Indian assistance on Feb. 15, 1951.

Nepalese troops assisted the British during the Indian Mutiny, the Tibet War of 1904, World War I, the Afghan hostilities of 1919, and World War II.

GOVERNMENT. Until 1951, real power was vested in the prime minister, nominated by special rules from among the royal family. The king now appoints the prime minister and cabinet members, who are responsible to him. The first commoner prime minister, M. P. Koirala, took office in Nov. 1951. The king took over the government himself in Aug. 1952.

The predominant Gurkhas are essentially a military caste. The army numbers about 20,000 regulars and 25,000 reserves. More than 100,000 Gurkha volunteers fought with the Indian Army in the Burma campaign of World War II.

ECONOMIC CONDITIONS. Cultivated and irrigated where possible, the main valley of Nepal grows rice, wheat, pulse, fruits, vegetables, spices, sugar cane and potatoes. A few sheep and cattle are grazed. Manufacturing is limited to native handicraft, but jute and textile mills are being established. Trade with India and Pakistan passes through various frontier stations, and there are two mountain trade routes to Tibet.

Main exports include hides, skins, opium, gums, resins, dyes, jute, wheat, pulse, rice, spices and timber. Two railroads enter Nepal for short distances—one from Raxaul, India, to Amlekhganj, the other from Jayauagar to Bijulpura. Transportation is for the most part difficult.

TOPOGRAPHY, RESOURCES AND CLIMATE. Along its southern border, Nepal has a strip of level land which is partly forested, partly cultivated. North of that is the slope of the Himalayan Range, including Mt. Everest and many peaks higher than 20,000 feet. Mineral resources, nearly all unexploited, include lignite, copper, zinc, lead, sulfur, marble and iron. Southern Nepal has valuable forests which yield gum, timber, resin and dye. Hemp plants grow wild. Mean temperature is 60°, with the hot season from April to June. Most of the rainfall (average 60 in. annually) occurs from June to October.

Netherlands— Indonesian Union

Netherlands (Kingdom) (Koninkrijk der Nederlanden)

Area: 12,514 square miles.*

Population (est. Jan. 1, 1952): 10,328,343 (practically all Dutch).

Density per square mile: 825.3.
 Sovereign: Queen Juliana.
 Prime Minister: Willem Drees.
 Principal cities (est. 1952): Amsterdam, 850,677 (capital, financial center); Rotterdam, 691,473 (chief port); The Hague ('s Gravenhage), 578,516 (seat of government); Utrecht, 196,533 (railway center); Haarlem, 165,074 (tulip center).
 Monetary unit: Guilder.
 Language: Dutch.
 Religions (census 1947): Roman Catholic, 38.5%; Dutch Reformed, 31.0%; other Protestant, 13.3%; Jewish, 0.2%; others and no creed, 17.0%.

* Land area only.

HISTORY. The Netherlands is small, half again as large as Massachusetts, but it is densely settled, is a major colonial power, and was eighth from the top in world trade at the start of World War II. Occupied by the Nazis until May, 1945, the Netherlands emerged with a fairly well salvaged economy and a less than average degree of the political chaos that gripped Europe.

Julius Caesar, the Roman, found the low-lying Netherlands inhabited by Germanic tribes, the Nervii, Frisii and Batavi. The Batavi on the Roman frontier did not submit to Rome's rule until 13 a.c., and then only as allies. A part of Charlemagne's empire in the 8th century a.d., the area later passed into the hands of Burgundy and the Austrian Hapsburgs and finally in the 16th century came under Spanish rule. When Philip II of Spain suppressed political liberties and the growing Protestant movement in the Netherlands, a revolt led by William of Orange broke out in 1568. Under the Union of Utrecht in 1579, the seven northern provinces became the Republic of the United Netherlands.

The Dutch East India Company had been established in 1602, and by the end of the 17th century Holland was one of the great sea and colonial powers of Europe. In 1689 William III of Orange and his wife, Mary, the elder daughter of James II of England, became King and Queen of England. The power of the republic declined in the 18th century during the wars with Spain and France, and in 1795 French troops ousted William V.

Following Napoleon's defeat, the United Netherlands and Belgium became the "Kingdom of the United Netherlands" under William I, son of William V and head of the House of Orange. The Belgians withdrew from the union in 1830, forming their own kingdom. William I abdicated in favor of William II in 1840; the latter was largely responsible for the promulgation of a liberal constitution in 1848.

The Netherlands continued to prosper during the long reign of William III from 1849 to 1890. The male line of the House

of Nassau became extinct with his death in 1890 and he was succeeded by his 10-year-old daughter, Wilhelmina, who was crowned Queen in 1898.

Neutrality was maintained during World War I, but overseas trade suffered heavily from the Allied blockade and German submarine warfare.

The prime minister from 1933 to 1939, except for brief intermissions, was Dr. Hendrick Colijn, leader of the Protestant Anti-Revolutionary Party. At the outbreak of World War II neutrality was proclaimed, but German troops invaded the country May 10, 1940, and by May 15, Dutch forces were ordered to lay down their arms. Queen Wilhelmina and Crown Princess Juliana fled to London, where a government-in-exile was established under Prime Minister P. S. Gerbrandy.

The German Army in the Netherlands capitulated May 5, 1945, and on May 23, the Dutch cabinet met once more in The Hague and tendered its resignation to Queen Wilhelmina. A new cabinet was formed on June 23 under Professor Willem Schermerhorn, a resistance leader and head of the Labor party. The Catholic party obtained a plurality in the May, 1946 elections and its leader, Dr. Louis J. M. Beel, set up a Labor-Catholic cabinet on July 3.

In parliamentary elections held July 7, 1948 (made necessary by consideration of constitutional questions dealing with Indonesia), the Catholic party retained its plurality, but Dr. Beel was unable to form a new cabinet and on Aug. 2 Labor leader Willem Drees formed a new coalition government.

Queen Wilhelmina abdicated after her fiftieth anniversary as ruler on Sept. 6, 1948, and was succeeded by Juliana, her only daughter.

The Labor party gained a plurality in elections held in June 1952, and Drees continued as prime minister at the head of a coalition government.

GOVERNMENT. Queen Juliana, born April 30, 1909, was married on Jan. 7, 1937 to Prince Bernhard of Lippe-Biesterfeld (born in 1911). They have four daughters: Beatrix, the heiress apparent (born 1938); Irene (born 1939); Margriet Francisca (born 1943), and Maria Christina (born 1947).

The Netherlands is a constitutional and hereditary monarchy, with female succession taking place only in default of male heirs. Executive power is vested exclusively in the sovereign, while legislative power rests with the sovereign and the States-General (Parliament). The upper chamber of Parliament, with 50 members, is elected for 6 years by the provincial states. The lower chamber, which shares with the government the privilege of initiating new

bills and proposing amendments, consists of 100 deputies who are elected directly for four years and retire *en bloc*. Executive power is exercised in part by responsible ministers, headed by the prime minister and holding office at the pleasure of the sovereign. Suffrage is universal for all Dutch subjects of 28 years of age. The party standing in the lower chamber (elections of June 1952) is as follows: Catholic 30, Labor 30, Anti-Revolutionary 12, Christian Historical Union 9, Freedom and Democracy 9, Communist 6, others 4.

Each of the eleven provinces has a local representative body—a Provincial State—presided over by a royal commissioner. The State collects taxes, and legislates on local matters. Routine administrative work of the province is carried on by a group of six members called the Deputed States. Each of the 1,054 communes has a locally elected council and a mayor appointed by the crown.

DEFENSE. Military service is compulsory. The army had about 175,000 men in 1949, and the air force 300 planes. The navy on Jan. 1, 1952, had 1 fleet carrier, 2 light cruisers (2 more under construction), 5 destroyers, 7 submarines, 9 frigates and other smaller craft. Defense forces were being expanded under a 4-year program, and 5 divisions were pledged to support NATO. An infantry force of 1,000 men and a destroyer were sent to Korea.

EDUCATION. Education is compulsory from the ages of 7 to 13; illiteracy is almost unknown. In 1949-50, elementary schools numbering 7,098 (of which 4,699 were private) had a total enrollment of 1,180,158; 1,281 secondary schools had 209,818 pupils. The 6 universities and 4 *hogescholen* (vocational colleges) had 28,566 students. The 4 public universities are at Leyden, Utrecht, Groningen and Amsterdam; the 2 voluntary universities are the Calvinist University of Amsterdam and the Roman Catholic University of Nijmegen.

RELIGION. The royal family and a large number of the inhabitants belong to the Dutch Reformed Church (Protestant), but there is complete religious freedom. Appropriations from the national budget are made for support of the Protestant, Roman Catholic, Jewish and Jansenist Churches. The Roman Catholic element is strongest in the southern provinces of Limburg and North Brabant.

AGRICULTURE. Dutch farms are characteristically small, with only a few larger than 250 acres. Wheat (269,592 metric tons in 1951), barley (210,112 tons), rye (457,999 tons), oats (491,178 tons), potatoes (3,795,612 tons) and sugar beets (2,450,519 tons) are grown, but dairying is more important. In 1951 there were 2,863,000 cattle,

1,935,000 hogs, 360,000 sheep and 250,000 horses. Production of cheese (1951: 140,-280 metric tons), milk (5,880,200 tons), butter (84,000 tons) and eggs (120,000 tons) is under state control. Large quantities of vegetables and fruits are raised for export. Almost as important as the dairy industry is the raising of tulip, hyacinth and other flower bulbs in the area around Haarlem.

INDUSTRY. The Netherlands is a highly industrialized nation, utilizing both overseas raw materials and domestic agricultural products. In 1948 there were 9,230 larger establishments with 778,527 workers. Leading industries are textiles, clothing, shipbuilding, shoes, food, and building materials.

The Netherlands ranks high among the world's shipbuilding nations; 143 vessels of 303,600 gross tons were under construction on March 31, 1952. Amsterdam is one of the world's leading diamond-cutting centers.

TRADE. The adverse balance of trade increased markedly after the end of World War II. Trade statistics, in millions of guilders (excluding parcel post, specie and diamonds) are as follows:

	1949	1950	1951
Exports	3,794.1	5,287.8	7,414.7
Imports	5,296.6	7,752.4	9,671.0

Principal customers in 1951 were Britain (16%), Belgium (14%), western Germany (14%), the U. S. (8%) and Indonesia (5%). Leading suppliers were Belgium (18%), western Germany (12%), the U. S. (11%), Britain (8%) and Indonesia (8%). The chief exports were dairy products and eggs (12%), fabrics and clothing (8%), machinery (8%), meat and fish (6%) and vehicles and ships (4%). Leading imports were machinery, fabrics and clothing, iron and steel and manufactures, cereals and flour, and petroleum and products.

COMMUNICATIONS. The Dutch merchant marine had 1,203 seagoing vessels of 3,130,-877 gross tons on Jan. 1, 1952—the fifth or sixth largest in the world. An extensive network of rivers expanded by many canals has led to extensive development of inland shipping. The length of navigable canals and rivers is almost 5,000 miles. River ships and barges numbered 17,300 on Jan. 1, 1952, with an aggregate deadweight tonnage of 4,400,000. In 1951, 76,000,000 tons of freight were carried on rivers and canals. The wealth of water transport has obviated the need for wide railway development. In 1951, there were 1,993 miles of railway, all operated by a government-owned company, and, in 1950, 4,418 miles of primary and secondary roads.

Air service is provided by Royal Dutch Airlines (KLM), which flew 28,540,298

miles on 51 routes in 1951, and carried 499,000 passengers (excluding former inter-insular service in Indonesia).

FINANCE. Recent financial data are as follows (in millions of guilders):

	1950*	1951†	1952†
Revenue	5,446	3,992	5,033
Expenditure	5,071	4,758	5,300

* Provisional. † Budget estimate.

The national debt on Jan. 1, 1952, including debt to the Netherlands Bank and war damage obligations, totaled 24,237,-160,000 guilders.

MINERALS, FORESTS AND FISHERIES. Netherlands minerals are few. The only important ones are coal (12,423,000 metric tons in 1951), lignite and salt. There also are peat swamps and about 630,000 acres of forest. The Netherlands fishing fleet made a catch of 257,000 metric tons valued at 84,300,000 guilders in 1951. Herring (124,000 tons) was the most important item.

TOPOGRAPHY. Part of the great plain of north and west Europe, the Netherlands has maximum dimensions of 190 by 160 miles and is low and flat except in Limburg in the southeast, where some hills rise to 300 feet. About half the country's area is below sea level, making the famous Dutch dikes a requisite to use of much land. Reclamation of land from the sea through dike-building has continued through recent times, and such land is usually very fertile.

The province of Zeeland consists mainly of six delta islands guarding the mouth of the Schelde (Scheldt) River and the entrance to Belgium's port of Antwerp. Off the northwest coast are the sandy West Frisian Islands, lying from three to twenty miles out and stretching from the Zuider Zee to the German coast.

All drainage reaches the North Sea, and the principal rivers—Rhine, Maas (Meuse) and Schelde—have their sources outside the country. The Rhine is the most heavily used waterway in Europe, and nearly three-fourths of its 75 to 85 million tons of annual prewar traffic was handled through the port of Rotterdam.

CLIMATE. Marsh mists, sea fogs and a humidity exceeding 80 per cent mark the Netherlands climate. Winters are colder than in eastern England at the same latitude. Utrecht, roughly central in location, has a January average temperature of 34.2° and a July average of 62.6°. Average rainfall for the country is about 28 inches, with July–September the wettest period.

NETHERLANDS OVERSEAS TERRITORIES

NETHERLANDS ANTILLES—Status: Part of the United Kingdom of the Netherlands.

Area: 403 square miles.

Population (est. 1950): 165,000.

Capital: Willemstad (pop. 1949: 45,000).

Governor: A. A. M. Struycken.

Foreign trade (1950): exports, 1,042,330,-000 florins; imports, 1,134,246,985 florins. Chief export: petroleum products (more than 95 per cent).

Agricultural products: aloes, beans, corn. Manufactures: refined petroleum, straw hats.

Mineral products: lime phosphate, salt.

This comprises two groups of Caribbean islands 500 miles apart; one, about 40 miles off the Venezuelan coast, consists of Curaçao (210 sq. mi.), Bonaire (95 sq. mi.) and Aruba (69 sq. mi.); the other, lying to the northeast, consists of 3 small islands with a total area of 29 square miles. The Dutch acquired the island of Curaçao from Spain in 1634 and have held it since, except for short intervals during the Napoleonic Wars. The U. S. accepted the invitation of the Netherlands government during World War II to dispatch troops to Curaçao to co-operate in its defense. Administrative officials include the governor (appointed by the crown) and an elected legislature and cabinet.

The backbone of Curaçao's economy is the refining of crude oil which comes from the adjacent Maracaibo fields in Venezuela. The refinery located on Aruba is the world's largest. Aside from native Curaçaoans, there were in the territory 7,511 English, 5,156 Dutch and 4,213 Venezuelans in 1943. Dutch is the official language, but many inhabitants speak a patois known as Papamentu, a mixture of Spanish, Dutch, English, Portuguese, native and other words. Only a small part of the trade is carried on with the homeland.

The island of Curaçao has a torrid climate, with average temperatures of 79° in January and 83° in September. Rainfall is light, averaging only 16 inches annually—mostly from October to January.

SURINAM (Dutch Guiana)—Status: Part of the United Kingdom of the Netherlands.

Area: 54,291 square miles.

Population (est. 1951): 223,000.*

Capital: Paramaribo (pop. 1951: 78,000).

Governor: J. Klaasesz.

Foreign trade (1950): exports, 31,477,145 Surinam guilders; imports, 39,814,281 guilders. Chief export: bauxite (70%).

Agricultural products: rice (1950: 50,-428 metric tons), sugar, coffee.

Minerals: bauxite (1950: 2,089,000 metric tons), gold (4,545 troy oz.).

Forest products: balata (1950: 180 metric tons), timber.

* Including aborigines, numbering about 25,000.

Surinam lies in northeastern South America between British and French Guiana. It was received by the Dutch from England at the Peace of Breda (1667) in exchange for New York and at that time included British Guiana, which was seized

by England in 1803 and formally ceded to her at the conclusion of the Napoleonic Wars. The United States and Brazil accepted the invitation of the Netherlands government during World War II to co-operate in the defense of the valuable bauxite mines. The governor (appointed by the crown) is assisted by an all-native legislature and cabinet, which have sole responsibility in domestic matters.

Mining is the most important activity, and only about 65,000 acres are devoted to agriculture. The largest bauxite mines are owned by Aluminum Company of America subsidiaries. In 1946 a company was formed to work 10,000,000 acres of the area's vast, but almost inaccessible, hardwood forests.

In 1948 the heterogeneous population included 2,100 Europeans, 2,560 Chinese, 22,000 Djukas (descendants of escaped slaves), 3,700 aboriginal Indians, 81,750 Negroes and mulattoes, as well as 97,000 Indian and East Indian laborers brought in after the abolition of slavery in 1883 to work the sugar plantations.

From its settled coastal plain, Surinam runs back to a virtually unexplored mountain and jungle area along the Brazilian border. Rivers are the chief means of interior travel. The climate is tropical throughout but is modified by the north-east trade winds. Yearly range of temperature is approximately 70.5°–90°. Annual rainfall is about 90 inches along the coast.

NETHERLANDS NEW GUINEA—Status: Part of the United Kingdom of the Netherlands.

Area: 151,789 sq. mi.

Population (est. 1949): 1,000,000.

Capital: Hollandia (pop. 1951: 32,000).

Governor: S. L. J. van Waardenburg.

Agricultural products: sago, coconuts, sugar cane, sweet potatoes.

Minerals: petroleum, nickel, chrome.

The western part of New Guinea, second largest island of the world, with smaller adjacent islands, forms part of the kingdom of the Netherlands. The area remained Dutch upon the transfer of sovereignty in Indonesia in Dec., 1949, with the understanding that its status would be determined within one year by negotiation between the Netherlands and Indonesia. Subsequent negotiations did not lead to any agreement.

The Papuans are the dominant stock; there are also Melanesian and Negro elements. Commerce and industry are almost unknown, and life is primitive, with head-hunting and cannibalism not unknown even today.

Dutch influence dates back to the activities of the Dutch East India Company in the 17th century. In 1828, the Dutch government declared Northwest New Guinea part of the Dutch East Indian colonies,

and the area was administered as part of the Netherlands Indies until 1949.

The northern half of the area is mainly hilly, with a very high range of mountains traversing it from east to west. The extreme west is almost entirely hilly, and the south is flat with vast swamps near the coast.

Indonesia (Republic)

(Republik Indonesia)

Area: 583,479 square miles.*

Population (est. 1951): 80,000,000* (Native except for 1,190,014 Chinese, 240,162 European [208,269 Dutch], and 7,195 Japanese in 1930).

Density per square mile: 137.1.

President: Achmed Sukarno.

Premier: Dr. Wilopo.

Principal cities (est. 1951): Jakarta (Batavia), 2,800,000 (capital); Jokjakarta, 1,848,886 (former Republican capital); Surabaya, 714,898 (seaport, naval base); Bandung, 659,213 (commercial center, west Java); Semarang, 310,942 (seaport, central Java); Surakarta, 266,365 (sugar, tobacco).

Monetary unit: Rupiah.

Languages: Bahasa Indonesia (Malay) (official), Dutch, Javanese, Sundanese, Madurese.

Religions: Mohammedan (predominant), Christian (about 2,500,000), Brahmin, Buddhist.

* Excluding Netherlands New Guinea.

HISTORY. The sovereign state of Indonesia, a group of islands with a total area more than twice that of Texas, constitutes one of the world's richest natural areas. These islands—Sumatra, Java, Madura, central and southern Borneo, Celebes and the Moluccas—would reach from San Francisco to Honolulu if their extent was transposed to the eastern Pacific. They have great wealth in tin, rubber, spices, oil, quinine and copra. Postwar economic recovery, however, was retarded in Java and Sumatra by conflict between the Dutch and native nationalists, and between the latter and Communists.

During the first few centuries of the Christian era, most of the islands came under the influence of Hindu priests and traders who spread their culture and religion. Moslem invasions began in the 13th century, and most of the area was Moslem by the 15th century. Portuguese traders arrived early in the 16th century but were ousted by the Dutch about 1595. After Napoleon subjugated the Netherlands homeland in 1811, the British seized the islands but returned them to the Dutch in 1816. Political and economic reforms were introduced about 1870, and in 1903 the natives won a part in local affairs. In 1922 the islands were made an integral part of the Netherlands kingdom.

In World War II, Japanese troops began their attacks in early 1942; they took Ba-

tavia on March 5 and the big naval base at Surabaya by March 10. Japanese military occupation with nominal native self-government continued until Aug., 1945, except in outlying parts of New Guinea and Borneo. About the time of the Japanese surrender, a self-styled Indonesian Republic headed by Achmed Sukarno sprang up and took over effective control of parts of Sumatra and Java. Allied forces, mostly British Indian troops, moved in, and fighting between them and the nationalists continued until Nov. 15, 1946, when Dutch-native negotiations resulted in a draft agreement initialed at Linggadjati, near Cheribon. The agreement was formally signed by Dutch and Indonesian authorities on March 25, 1947.

Under this agreement there was to be formed by Jan. 1, 1949, the Netherlands-Indonesian Union, consisting on the one hand of the Netherlands, Curaçao and Surinam, and on the other of the United States of Indonesia. The latter was to be a sovereign state composed of three equal states: the Republic of Indonesia (Java, Sumatra, Madura), East Indonesia (Celebes, the Moluccas, Bali, Lombok, Dutch Timor), and Borneo.

Plans for implementing the agreement, however, remained in controversy, and fighting between the Dutch and the nationalists broke out anew on July 20, 1947. Dutch forces made large gains in both Sumatra and Java and regained control of Madura. Both sides issued cease-fire orders on Aug. 4, 1947, in response to a call from the U. N. Security Council, which named a Good Offices Commission under whose auspices the Dutch and the Republic signed another truce on Jan. 17, 1948, aboard the U.S.S. *Renville*. A provisional federal government for the whole area was installed on Mar. 9, 1948, but difficulties between the Dutch and the Republic continued. On Dec. 18, 1948, Dutch forces instituted "police" action against Republican areas and seized the Republican leaders. Hostilities ceased Jan. 1, 1949, following U. N. intervention. On May 7, the Dutch agreed to return the exiled Republican regime to central Java.

Negotiations for establishment of the federation culminated in inter-Indonesian agreement on the terms of union on Aug. 2, 1949, and on a provisional constitution on Oct. 30. On Nov. 2, Dutch and Indonesian leaders agreed upon the terms of union between the Netherlands and Indonesia. Dr. Sukarno was elected president of the federation on Dec. 16 by representatives of the Indonesian states, and the first all-Indonesian cabinet was formed with Mohammed Hatta as premier. The transfer of sovereignty took place at Amsterdam on Dec. 27, 1949.

GOVERNMENT. Under the statute of union

between the Netherlands and Indonesia, both are sovereign independent nations joined together in the person of the Queen of the Netherlands. The statute provides for economic, financial and military co-operation.

Indonesia, originally a federal state, is now a unitary state consisting of 10 provinces under the constitution promulgated on Aug. 15, 1950. Legislative power is vested in the 220-member People's Representative Council, composed of members of the former Federal and Republican parliaments. Executive power is exercised by the president and the premier and his cabinet.

Dutch forces were evacuated from Indonesia in the first part of 1950, and Indonesian members of the Royal Netherlands Indies army were incorporated into the federal army.

SOCIAL AND ECONOMIC CONDITIONS. There are institutions of higher learning at Jakarta and Bandung, and numerous schools are maintained by Christian missionaries.

In 1949-50 there were 24,542 primary schools, with 4,212,031 pupils; 1,250 secondary schools, with 165,399 students; and 681 Chinese schools, with 162,315 pupils.

The islands of Java and Madura, with only nine per cent of the area, have more than two-thirds of the population, and are among the most densely settled areas in the world (more than 800 per sq. mi.). The natives, including about 137 races and tribes, are mainly of Malayan stock, with the Javanese the most advanced.

Agriculture engages about 70 per cent of the adult males. Rich in a variety of crops, the islands prior to World War II produced about 31 per cent of the world's copra, 37 per cent of its rubber, 83 per cent of its pepper, and nearly all of its quinine. The big-estate agriculture on Java and Sumatra is devoted mainly to export. The rest is subsistence agriculture. Rice is the staple food and chief crop; production in 1951 was 11,906,000 metric tons (paddy). Major plantation crops, with 1951 production in metric tons, are rubber, 773,221; tea, 46,520; coffee (estates only), 11,893; cinchona bark, 9,114; palm oil, 121,154; palm kernels, 29,961.

Others are sugar, cacao, spices, agave fiber, copra and kapok. In addition to rice, the chief food crops are maize, cassava, sweet potatoes, peanuts and soybeans.

Livestock, important to the natives, included in 1949-50, 3,618,000 cattle, 1,254,000 hogs, 2,773,000 carabaos and 616,000 horses.

Industry, especially in Java, developed rapidly after 1930. In addition to industries connected with the processing of the

rich natural products, there were established chemical works, textile and paper mills, soap factories, breweries, shipyards, a Goodyear tire and rubber plant and a General Motors assembly plant. War damage was severe.

Indonesia is primarily an importer of consumer and capital goods and an exporter of mineral and plantation products. Recent trade data are as follows (in millions of rupiahs):

	1949	1950	1951*
Exports	1,478	2,954	4,676
Imports	1,574	1,638	3,060

* Preliminary.

Chief exports in 1951 were rubber (51%), petroleum and products (14%), copra (11%), tin (6%) and tea (3%). Leading customers were Singapore (29%), the Netherlands (21%), the U. S. (16%) and Britain (6%); leading suppliers, the U. S. (20%), Japan (19%), the Netherlands (12%) and Britain (6%).

In 1940 there were 43,450 miles of road, mostly in Java and Sumatra; and in 1950, 3,960 miles of railway, of which about three-fourths were in Java and a fourth in Sumatra.

The 1950-51 budget forecast revenue at 6,990,200,000 rupiahs and expenditures at 8,726,300,000 rupiahs. Preliminary 1951-52 figures were 8,050,000,000 rupiahs and 9,037,000,000 rupiahs, respectively. The national debt was reported provisionally at 6,620,000,000 rupiahs on Jan. 31, 1951.

Petroleum is the principal mineral product of modern Indonesia. The fields, in Sumatra, east Borneo and east Java, produced 62,100,000 barrels in 1939, which was 3 per cent of the world total. In 1951, production was 7,444,724 metric tons (about 58,100,000 barrels), and almost all the refineries were operating at prewar capacity.

The islands' output of 30,100 tons of tin in 1939 amounted to 16 per cent of the world supply. The industry recovered more rapidly than others after World War II, and produced 30,986 long tons of tin ore in 1951. Other important minerals include bauxite (1951: 642,316 metric tons), coal, salt, nickel and manganese. Deposits of uranium are believed to exist.

Forests, covering much of the area except Java, yield such products as timber, rattan, bamboo, gum, wild rubber, gutta-percha and quinine. Most valuable timber is teak, found mostly in east Java. Ebony, sandalwood and ironwood also are cut.

TOPOGRAPHY AND CLIMATE. A backbone of high mountain ranges with many snow-capped peaks extends throughout the main islands of the archipelago. Earthquakes are frequent, and there are many active volcanoes, 90 of them in Sumatra. Borneo is heavily forested, with interiors that are difficult to penetrate.

The climate throughout the group is equatorial and monsoonal, with little variation of temperature (yearly average about 80°; at Batavia, 79°) and rainfall averaging over 100 inches a year. In Sumatra and Java the hot and rainy season usually lasts from May to October; December and January are relatively cool and dry; February, March and April, hot and dry.

Nicaragua (Republic) (República de Nicaragua)

Area: 57,143 square miles.*

Population (census 1950†): 1,053,139 (1943: mestizo, 69%; white, 17%; Negro, 9%; Indian, 5%).

Density per square mile (land only): 19.6.

President: Anastasio Somoza.

Principal cities (est. 1948): Managua, 146,819 (capital); León, 53,277 (trading, railroad center); Matagalpa, 53,118 (coffee center); Jinotega, 41,065.

Monetary unit: Córdoba.

Language: Spanish.

Religion: Roman Catholic.

* Including inland water area of 3,475 square miles.

† Preliminary figures.

HISTORY. Nicaragua was first visited by the Spaniards in 1522. The chief of the country's leading Indian tribe at that time was called Nicaragua, from whom the nation derived its name. The country was part of Spanish Guatemala until the general Central American revolution in 1821. Upon the dissolution of the Central American Union in 1838, Nicaragua established itself independently. A United States naval force intervened in 1909 after two American citizens had been executed, and a few U. S. Marines were kept in the country from 1912 to 1925. The Bryan-Chamorro Treaty of 1916 gave the United States an option on a canal route through Nicaragua, and naval bases in the Gulf of Fonseca on the Pacific coast and on Corn Islands on the Atlantic side. Disorder after the 1924 elections brought in U. S. Marines again, but they were withdrawn gradually after the U. S.-supervised elections of 1928, although sporadic fighting continued between government troops and rebel forces under General Augusto Sandino. Juan B. Sacasa was elected president in the U. S.-supervised elections of 1932, but he was forced to resign in 1936. General Anastasio Somoza, elected president in Dec., 1936, restored political and economic stability. Re-elected in 1939, he remains the virtual dictator. Dr. Leonardo Argüello was elected president in Feb., 1947 but was ousted after taking office because of his opposition to Somoza. The newly elected constituent assembly named Victor M. Román y Reyes president on Aug. 15, 1947. Gen. Somoza took office again on May 21, 1950, after national elections.

GOVERNMENT AND DEFENSE. The constitution of 1948 provides for a president, popularly elected for six years, and a two-house Congress—a 44-member Chamber of Deputies and a 15-member Senate—both elected for six years. There are sixteen regional departments. Military service is voluntary. The Guardia Nacional, both an army and police force, numbers about 3,500. A naval base built at the Pacific port of Corinto by the U. S. during World War II was turned over to Nicaragua in 1946.

SOCIAL AND ECONOMIC CONDITIONS. Although primary education is free and compulsory, about 60 per cent of the people are illiterate. There are 3 universities and several vocational schools. In 1951-52 there were 1,261 schools of all kinds with 86,764 students. Western Nicaragua, with about 75 per cent of the population, is inhabited principally by mestizos of Spanish and Indian blood, with some whites and Indians. Negroes and Indians are dominant in eastern Nicaragua.

More than half of Nicaragua is jungle-covered; agriculture, the leading industry, utilizes only 10 per cent of the total land. Coffee (exports 1950-51 season: 262,578 bags of 132 lbs. each) is the chief crop and grows in the western part, which also produces sugar cane, cacao, sesame, beans, rice, tobacco and corn, the chief subsistence crop. Bananas lead in the eastern part, with cotton second. About 900,000 acres are devoted to livestock grazing. Except for some sugar refining, only locally consumed products are manufactured.

Exports in 1951 (excluding gold) were valued at \$36,750,000; imports, at \$29,960,000. The U. S. supplied 72% of the imports and took 60% of the exports. Besides gold (about \$9,000,000), leading exports were coffee (51%), cotton and sesame.

Gold (1949: about 223,000 troy oz.) rivals coffee as the most lucrative export. Silver production in 1948 was 214,828 troy oz. One-third wooded, Nicaragua produces mahogany, rosewood, cedar, rubber and ipecac root. In 1949, Nicaragua exported 22,197,867 bd. ft. of logs and lumber.

Good highways, long lacking, are now being constructed; there were 418 miles of paved road in 1949. Railways, mostly nationalized and limited to the west, were only 236 miles in 1949. TACA (Central American Airlines) and Pan American both supply air service. Corinto and San Juan del Sur, on the Pacific, are the chief ports.

The 1951-52 budget forecast expenditures of 94,700,000 córdobas. The public debt in June 1951 was 47,665,000 córdobas, of which 8,505,000 córdobas was external.

TOPOGRAPHY AND CLIMATE. Largest but most sparsely populated of the Central American nations, Nicaragua is mountain-

ous in the west, with fertile valleys. A plateau slopes eastward toward the Caribbean. Two big lakes—Nicaragua, about 100 miles long, and Managua, about 38 miles long—are connected by the Tipitapa River. The Pacific coast is bald and rocky; the Caribbean coast, swampy and indented, is aptly called the "Mosquito Coast." The highlands have cool temperatures, while the coasts are hot and sultry. The east coast receives up to 100 inches of rain a year. The wet season is generally from May or June through November or December.

Norway (Kingdom)

(Norge)

Area: 125,193 square miles.

Population (est. Dec. 31, 1951): 3,309,000 (Norwegian, 98.7%; Swedish, .8%; others, .5%).

Density per square mile: 26.4.

Sovereign: King Haakon VII.

Prime Minister: Oskar Torp.

Principal cities (est. 1948): Oslo, 427,500 (capital, chief port); Bergen, 113,683 (seaport, shipbuilding); (1946) Trondheim, 57,128 (seaport, timber, fish); Stavanger, 50,320 (seaport, fisheries).

Monetary unit: Krone.

Language: Norwegian.

Religions: Evangelical Lutheran (state), 96.8%; others, 3.2%.

HISTORY. Norwegians, akin to Swedes and Danes, are of Teutonic origin. In the 7th and 8th centuries, Vikings from Norway constantly attacked the British Isles, and in the 9th century many of them settled in what are now Ireland and Normandy. Norway became a united kingdom in 872 under King Harald Haarfager. Christianity was introduced in the 10th century by King Olaf I.

Under the rule of Haakon IV (1217-63), Norway reached a peak of power, ruling the Shetland and Orkney Islands, Iceland, Greenland and the Hebrides. In 1319 Norway and Sweden were united under King Magnus VII, and in 1397 Denmark joined this union under Erik of Pomerania.

In 1450 the triple bond gave way to a union in which Norway was closer to Denmark, but the Treaty of Kiel, in 1814 at the end of the Napoleonic Wars, ceded Norway to Sweden. Norway protested and declared itself independent. Sweden thereupon invaded Norway and forced the issue, requiring Norway to recognize the king of Sweden but leaving Norway its own government, army, navy and customs.

After this union was dissolved in 1905, Prince Karl of Denmark was elected king of Norway by the Storting (parliament) and ascended the throne as Haakon VII. During World War I, Norway was able to preserve its neutrality, though it suffered greatly from the Allied blockade and from

the loss of many merchant ships. In World War II, Norway was invaded by the Germans on April 9, 1940, and resisted for two months before Nazi control was complete. On June 7, King Haakon and the government fled to London and established a government-in-exile.

Meanwhile, in Norway, a new word was born—quisling. It was derived from Major Vidkun Quisling, a Norwegian traitor who collaborated with the Germans and who was Minister President of the German-sponsored occupation government. Quisling eventually was executed by the Norwegians in October, 1945.

King Haakon and the government returned immediately after the German collapse in May, 1945, and an interim coalition cabinet took over, headed by Einar Gerhardsen. The latter's Labor party won a majority in the general elections of Oct. 8, 1945, and an all-Labor cabinet formed on Nov. 5, 1945, led the nation thereafter. Gerhardsen resigned in Nov. 1951, however, and was replaced by Oskar Torp.

Despite Soviet pressure, Norway adhered to the North Atlantic Pact in April 1949.

King Haakon VII, born August 3, 1872, second son of Frederick VIII of Denmark, married Princess Maud (born 1869, died 1938), third daughter of Edward VII of England. Their one son—Olaf, Crown Prince, born July 2, 1903—married Princess Märtha of Sweden (born 1901) on March 21, 1929. Their children are Princess Ragnhild Alexandria (born 1930), Princess Astrid (born 1932) and Prince Harald (born 1937). King Haakon is the uncle of Frederick IX of Denmark.

GOVERNMENT AND DEFENSE. Norway is a constitutional and hereditary monarchy with succession in the direct male line. The king's executive power is exercised by a council of state, or cabinet, consisting of the prime minister and at least seven other councilors. The 150 members of the Storting are popularly elected for a term of 4 years under proportional representation. When assembled, the Storting divides itself by election into two sections, the Lagting, composed of one-fourth of the members (38) and the Odelsting, composed of the rest. The Storting has a predominant position in the government since the cabinet is responsible to it. Moreover, the king cannot dissolve it before the expiration of its term. There is universal suffrage for all citizens, male or female, over 23. Party representation in the Storting (elections of Oct. 10, 1949) is Labor, 85; Conservative, 23; Liberal, 21; Agrarian, 12; Christian People's, 9.

The department of defense serves as a coordinating body for the army, navy and air force. The army is a national militia with compulsory service from 18 to 55. Army strength in 1951 was about 15,000.

The navy, on Dec. 31, 1951, had 5 fleet destroyers, 8 submarines, 12 frigates and escort vessels and other minor ships.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory and free from 7 to 14. Illiteracy is almost unknown. In 1947-48, elementary schools had enrollment of 296,203, and secondary schools had 42,158. The University of Oslo had 6,106 students in 1947; a second university was opened at Bergen in 1948.

The endowed state religion to which the king must conform is Evangelical Lutheran. The king nominates the clergy of the established church, which takes a leading part in primary education. All other Christian religions are tolerated, but Jesuits are barred.

From 1820 to 1920, more than 800,000 Norwegians emigrated, 96 per cent of them to the United States.

The well-advanced social welfare program includes social security, introduced late in the 19th century, poor relief, care of mothers and children, schools for the blind, deaf and deformed, housing, training of social workers, and old-age pensions. Labor is protected by a number of acts which provide for vacations, arbitration of disputes, and unemployment, accident and sickness insurance. The co-operative movement is well-organized.

Land suitable for cultivation, estimated at less than 5 per cent of the total area, consists of strips in the deep narrow valleys and around fiords and lakes. Food-stuff production is insufficient to meet domestic needs. Leading crops, with 1951 production in metric tons, are wheat, 47,000; barley, 130,000; oats, 180,000; potatoes, 1,138,000; hay and fodder. The country is more adapted to stock raising than to crop growing; in 1950, there were 1,237,000 cattle, 1,812,000 sheep and 130,000 goats.

Raw materials produced in Norway form the basis of most of the manufactures. In 1949 there were 6,176 industrial establishments with 206,950 workers and gross production valued at 7,328,500,000 kr. Leading industries are food, machinery, metals, wood, paper and electro-chemicals. On Mar. 31, 1952, 51 vessels of 133,783 gross tons were under construction in Norwegian yards.

Statistics of foreign trade are as follows, in millions of kroner:

	1949	1950	1951
Exports	2,137	2,789	4,423
Imports	4,224	4,846	6,266

In 1951 the leading suppliers were Britain (23%), the U. S. (13%), Sweden (12%) and Germany (8%). Leading customers were Britain (20%), Germany (9%), Sweden (8%) and the U. S. (7%).

Chief exports were pulp, paper and cardboard (30%), fish and products (14%), fish oil and ships.

The normally adverse trade balance is offset to some extent by invisible exports, particularly the earnings of the large merchant marine.

Norway is one of the greatest seafaring nations, and its merchant marine of 2,999 vessels (100 tons and over) of 5,815,738 gross tons (June 30, 1951) is the third largest in the world. War-time losses amounting to 2,393,000 tons were the third highest among the United Nations. The long coast line and the difficulties of inland transportation make coastal shipping especially important. In 1950 there were 2,776 miles of railway and 27,500 miles of highway.

The 1952-53 budget was balanced at 3,239,000,000 kr. The public debt on Dec. 31, 1951, was 4,873,000,000 kr.

Mineral resources are extensive, but coal deposits are entirely lacking except in Spitsbergen. The most important minerals (1951 production in metric tons) are iron ore, 437,583; aluminum, 51,209; pyrite ore, 696,217; zinc, 40,233; and copper ore, molybdenum ore, tungsten, antimony ore, tin and silver.

Cheap electric power, produced mainly by hydroelectrical plants (average monthly production 1951: 1,443,000,000 kwh), makes possible the extraction of nitrogen from the air and manufacture of potassium nitrate, an important fertilizer.

The forests, largely in the south and southeast, are one of the chief natural resources. About 25 per cent of the total area is covered with forests, of which 70 per cent is pine. Timber production in the 1951-52 season was about 7,600,000 cu.m. Paper and cardboard production in 1951 was 511,000 metric tons; chemical pulp, 529,315 tons; mechanical pulp, 553,934 tons.

Fishing is one of the principal industries, engaging as many as 100,000 persons annually. A large number of the best European food fisheries are situated along the coast. The 1951 catch totaled 1,595,000 metric tons valued at 450,000,000 kr. Norwegians are the world's leading whalers and were the first to develop pelagic (open sea) whaling. Whale-oil production in the 1950-51 season was 1,151,000 barrels.

TOPOGRAPHY AND CLIMATE. Nearly 70 per cent of Norway is uninhabitable and covered by mountains, glaciers, moors and rivers. Its extreme length from the Skagerrak to North Cape—Europe's most northerly point, far above the Arctic Circle—is about 1,100 miles. Breadth averages 60 miles, with a maximum of 260. The hundreds of deep fiords that cut into Norway's coast line give it an over-all ocean front of more than 12,000 miles. Along the Swedish

border are the rugged Kjölen (Keel) Mountains, and northeast of Bergen are the highest of Norwegian mountains, with Galdhøpiggen rising to 8,097 feet. Islands off the coast, numbering almost 150,000, form a breakwater and make a safe coastal shipping channel. The Lofoten and Vesterålen Islands, off the northwest coast, have an area of about 1,560 square miles.

Norway has many rivers and lakes. Most of the rivers are short and swift, with numerous falls, and are invaluable as sources of hydroelectric power. By increasing the development of such power, Norway hopes to free itself from the necessity of importing coal, of which it has almost none.

The Gulf Stream affects the climate mildly. Summer temperatures range from about 50° in the extreme north to 60.6° at Oslo in July. February temperatures in Oslo average 24°, against 11° to -12° in the north. Norway is one of the lands of the midnight sun; in the extreme north for many weeks in the summer the sun never sets, and for an equal time in the winter the sun does not rise. Rainfall is heavy on the coast but decreases sharply inland.

OUTLYING TERRITORIES

SPITSBERGEN (SVALBARD).

This arctic archipelago, with an area of approximately 25,000 square miles, lies about 400 miles north of Norway and consists of West Spitsbergen (15,200 sq. mi.), North-East Land (about 6,000 sq. mi.), Edge Island (2,500 sq. mi.), Barents Island (580 sq. mi.), and several small islands including Bear Island. The group was probably discovered by Norwegians in A.D. 1194 and rediscovered by the Dutch navigator Barents in 1596. The question of sovereignty was long unsolved. By a treaty signed with the disputing nations on Feb. 9, 1920, however, Norwegian sovereignty was recognized, and Norway declared the area a part of the kingdom Aug. 14, 1925. Spitsbergen was occupied by Allied forces in the summer of 1941. Soviet proposals for establishment of joint military bases were rejected by Norway in Feb., 1947.

In the 18th and 19th centuries, Spitsbergen was a whaling center, but now the only important product is coal (1950: 379,926 metric tons). Population (1949), largely miners, none indigenous; 3,950.

JAN MAYEN ISLAND.

This arctic island (144 sq. mi.), lying between Greenland and the north of Norway, was discovered by Henry Hudson in 1607. It was annexed to Norway May 8, 1929. A Norwegian weather station was established in 1921, and during World War II a U. S. Navy weather station was maintained on the island. It is otherwise uninhabited.

OTHER TERRITORIES. Norway also exercises sovereignty over Bouvet Island (22

sq. mi.) in the South Atlantic, Peter I Island (94 sq. mi.) in the Antarctic Ocean, and that part of the Antarctic continent lying between 20 degrees and 45 degrees east. All are uninhabited.

Outer Mongolia. See Mongolian People's Republic

Palestine. See Israel; Jordan

Panamá (Republic) (República de Panamá)

Area: 28,575 square miles.
Population (census 1950): 805,285
(1940: mestizo, 65.34%; Negro, 13.31%; white, 11.07%; Indian, 9.53%; others, .75%).

Density per square mile: 28.2.
President: José Antonio Remón.
Principal cities (census 1950): Panamá City, 127,874 (capital and chief port); Colón, 52,204 (chief Caribbean port); Ciudad David, 14,847 (bananas).
Monetary unit: Balboa.
Language: Spanish (official).
Religion: Roman Catholic, 93%; Protestant, 6%; others, 1%.

HISTORY. Visited by Columbus in 1502 on his fourth voyage and explored by Balboa in 1513, Panamá was the principal transshipment point for Spanish treasure and supplies to and from South and Central America in colonial days. In 1821, when Central America revolted against Spain, Panamá joined Colombia, which already had declared its independence. For the next 82 years, Panamá attempted unsuccessfully to break away from Colombia. After U. S. proposals for canal rights over the narrow isthmus had been rejected by the Colombian Senate, Panamá proclaimed its independence with U. S. backing in 1903. U. S. Marines restrained Colombian intervention on the ground that the U. S.-Colombian treaty of 1846 gave the United States the right to keep the isthmus open.

For canal rights in perpetuity, the United States paid Panamá \$10,000,000, and agreed to pay \$250,000 (\$430,000 after devaluation of the U. S. dollar in 1933) each year. In exchange, the United States got the Canal Zone, a ten-mile-wide strip across the isthmus, and a considerable degree of influence in Panamanian affairs. Since 1903, Panamá's government generally has been stable, with orderly presidential succession. Arnulfo Arias, a pro-Axis president, was ousted and exiled in 1941, and succeeded by Dr. Adolfo de la Guardia.

During World War II the U. S. was granted the right to establish a number of bases in Panamá. All were evacuated in 1948 after the Assembly rejected a 10-year lease agreement on Dec. 23, 1947.

Enrique A. Jiménez was elected provisional president in 1945 by the National Assembly, which later extended his term to Oct. 1, 1948. The presidential election of May, 1948, was extremely close and the subject of heated controversy. The government candidate, Domingo Díaz Arosemena, was declared the victor by the national election jury on Aug. 7, and he took office on Oct. 1. He died Aug. 23, 1949 and was succeeded by Daniel F. Chánis, Jr., the first vice president. Following a hectic week in late Nov., 1949, the national police installed Arnulfo Arias as president. He in turn was ousted on May 10, 1951, and replaced by first vice-president Alcibiades Arosemena. José Antonio Remón was elected May 11, 1952, to take office Oct. 1.

GOVERNMENT. Under the 1946 constitution, the Assembly and the president are elected for 4-year terms, with the president ineligible to succeed himself. Panamá has no army or navy, but has a national police corps numbering 2,000.

SOCIAL AND ECONOMIC CONDITIONS. Although education is free and compulsory between 7 and 15, illiteracy is very high in Panamá. In 1951-52, there were 974 public and private primary schools with 115,582 students, and 77 public and private secondary schools with 21,437 students; the national university at Panamá City had 1,805 students.

About five-eighths of the nation is unoccupied. A fourth of the population is in Colón and in Panamá City, the oldest white settlement on the Pacific coast of the Americas. In the cities, the lower classes are Negro and Negroid, descendants of British West Indian laborers on the canal. Once literally a pest hole from coast to coast, Panamá has been made into one of the healthiest of the tropical nations through U. S. sanitation methods introduced by Canal Zone officials.

Bananas are the main agricultural crop; others are cacao, tobacco, abacá, rubber, rice, coffee and sugar cane, all of which are exported, as are cattle, hides and gold. Imports in 1951 were \$66,121,893; exports, \$11,690,000. Chief exports were bananas (48%) and abacá (10%). Leading customers were the U. S. (81%), Venezuela and El Salvador; leading suppliers, the U. S. (68%), the Canal Zone and Britain.

The Panama Canal is the country's biggest economic asset. About a third of the national income is ordinarily derived from the wages of Panamanians working in the Canal Zone, or from cash spent by U. S. personnel in the Zone. National revenue in 1951 totaled \$34,479,981; expenditure, \$34,480,984. The public debt on Dec. 31, 1951, was \$34,574,125.

The main railway is the U. S. Government-owned Panamá Railroad, 47.64 miles

long, bridging the isthmus from Panamá City to Colón. All rail mileage in 1951 totaled 223; highway mileage in that year was about 1,100. In recent years many foreign ships have been registered in Panamá to escape high labor costs and governmental regulations in other nations; in 1951, the merchant marine consisted of 607 vessels (100 tons and over) of 3,609,395 gross tons, one of the largest in the world.

Minerals include gold, oil, copper and platinum near the Colombian border, but transit shortcomings have hampered development. Forest resources include mahogany, copaiba, sarsaparilla and ipecacuanha. Pearl fishing is a minor industry.

TOPOGRAPHY AND CLIMATE. Panamá, though the size of South Carolina, runs east to west for 420 miles from Costa Rica to Colombia, and has a maximum width of 118 miles, with 477 miles of Caribbean coast and 787 on the Pacific. At the narrowest and lowest point, the canal bisects the country. Outlying islands number about 630 in the Caribbean and 116 in the Pacific. Panamá steps up from coastal lowlands, with extremely heavy rainfall, to upland valleys and plateaus covered by dense forest and a few mountain peaks, some volcanic, near the Costa Rican border.

Paraguay (Republic) (República del Paraguay)

Area: 154,165 square miles.

Population (census 1950*): 1,406,000 (Paraguayan, 97%; Indian, 3%).

Density per square mile: 9.1*.

President: Federico Chaves.

Principal cities (census 1950*): Asunción, 204,085 (capital); Encarnación, 40,906 (rail terminus); Concepción, 29,650 (port, Paraguay River); Villarrica, 26,527 (sugar, tobacco).

Monetary unit: Guarani.

Languages: Spanish (official), Guarani.

Religion: Roman Catholic (official).

* Preliminary figures.

HISTORY. Paraguay, a landlocked South American country with a good river outlet to the South Atlantic, is about the size of Montana and, more often than not, is under the rule of a dictator-president.

In 1526 and again in 1529, Sebastian Cabot explored the area when he sailed up the Paraná and Paraguay Rivers. Domingo Martínez de Irala, a Spaniard, founded Asunción in 1537 and became the dominant figure in Paraguay for the next two decades. From 1608 until their expulsion from the Spanish dominions in 1767, the Jesuits maintained an extensive establishment in the south and east of Paraguay. In 1811 Paraguay revolted against Spanish rule and became a nominal republic under two consuls, one of whom, Dr. José Rodríguez Francia, ruled as absolute dictator until his death in 1840. His dictator successor,

Carlos Antonio López, was succeeded in 1862 by his son, Francisco Solano López, under whose leadership Paraguay lost a good part of its population in a disastrous five-year war with Argentina, Brazil and Uruguay. In the succeeding decades, economic progress was handicapped by revolution, intrigue and corrupt government. Paraguay remained neutral in World War I. Economic and financial exhaustion resulted from the war with Bolivia (1932-35), after which Paraguay was awarded three-fourths of the disputed Gran Chaco region (1938).

General José Félix Estigarribia, elected president constitutionally in 1939, was killed a year later in a plane crash. General Higinio Morínigo took over and held office, despite several abortive revolts and a 6-month civil war in 1947, until June, 1948, when he was ousted. Juan Natalicio González, elected president in the Feb., 1948, elections, took office Aug. 15, but successive revolts on Jan. 30 and Feb. 26, 1949, ousted him and his successor. The leader of the latter revolt, Felipe Molas López, was elected president on Apr. 17, but gave way to Federico Chaves in another internal upheaval on Sept. 11, 1949.

GOVERNMENT AND DEFENSE. Since adoption of the 1940 constitution, Paraguay has been a semi-authoritarian republic which elects a president every five years by popular vote, and a one-house Congress on a population basis. There is also a Council of State, somewhat equivalent to an upper house, its members named by the government. The presidentially-appointed cabinet administers the government and is required merely to inform the Congress and Council of its policy.

The army numbers approximately 5,000. Military service is compulsory for two years. For patrolling the Paraguay River, the country's life line, there is a navy of about 1,400 men with four gunboats. The budget share allotted to defense averages 50 per cent.

SOCIAL AND ECONOMIC CONDITIONS. The illiteracy rate is unofficially estimated at 60 per cent, one of the highest in South America. Education is free and supposedly compulsory. In 1949 there were 186,101 pupils attending 1,262 elementary schools. The University of Paraguay at Asunción had 1,800 students in 1950, and there were several normal and agricultural schools.

The Paraguayans are a homogeneous blend of Spanish, Portuguese and Italian, with considerable Guarani Indian blood. There are almost no Negroes; the 35,000 to 50,000 uncivilized Indians live mainly in the Chaco. The country is 90 per cent bilingual, with Guarani dominating over Spanish (the official language) in rural areas.

A well-favored land, Paraguay is predominantly a cattle country, keeping about

3,000,000 head. The soil is fertile and the climate suitable for subtropical crops. The chief cash crop is cotton (acreage: 150,000; 1951 ginned output: 14,000 metric tons); the staple food crop is manioc. Other crops are rice, maize, yerba maté, tobacco, sugar, peanuts and fruits. Oil of petit-grain, an important perfume ingredient, is extracted from the leaves of the bitter orange. Aside from the production of canned meat (about 15,000 tons yearly) and quebracho extract, the manufactures of the country are only slightly developed, but show steady growth.

Exports in 1950 were valued at \$33,060,000 and imports at \$18,940,000. Argentina, the U. S. and Britain were the leading customers and also the principal suppliers. Chief exports were timber (27%), cotton (20%) and quebracho extract (17%).

River traffic, the principal means of communication, was monopolized until recently by an Argentine company, but the Paraguayan river fleet is of increasing importance. The Paraguay river is navigable for vessels of 12 ft. draft to Asunción, principal shipping point, and Concepción; and for smaller vessels for its entire length. The Alto Paraná is navigable for larger vessels for almost its whole length. Railway mileage in 1947 was 749. In 1950 there were some 600 miles of modern highways.

Domestic air service is furnished by the nationalized Línea Aérea de Transporte Nacional (LATN). Several foreign lines supply international service.

The 1950 budget called for expenditures of 112,900,000 guaranis and revenue of 98,300,000 guaranis. The national debt in 1948 was \$22,500,000.

Paraguay's mineral deposits are small, except for manganese in the near-inaccessible northeast. In the western Chaco, a U. S. oil company has been exploring for oil. Forest resources are considerable, especially in the Chaco. Quebracho—the "Axe-breaker," a wood so heavy that it will not float—is the principal commercial tree. The wood has many uses, from paving blocks to ox-cart wheels. Quebracho tannic extract (production 1950: 31,410 metric tons) is the chief product. Its export is limited by agreement with Argentina, also a heavy producer.

TOPOGRAPHY AND CLIMATE. Eastern Paraguay, between the Paraná and Paraguay Rivers, is upland country with the thickest population settled on the grassy slope that inclines toward the Paraguay River. The greater part of the Chaco region, to the west, is covered with marshes, lagoons, dense tropical forest and jungle. In the east, the temperature averages about 81° in summer (December–February) and 64° in winter (May–August). From Asunción, with an annual average greater than

60 inches, the rainfall decreases in the west.

Peru (Republic)

(República del Perú)

Area: 482,133 square miles.

Population (est. 1950): 8,466,000 (white and mestizo, 53%; Indian, 46%; Asiatic, Negro and others, 1%).

Density per square mile: 17.4.

President: Manuel A. Odria.

Principal cities (est. 1949): Lima, 800,460 (capital); Arequipa, 95,230 (commercial center); Callao, 85,892 (port of Lima); Cuzco, 54,292 (ancient Incan capital); Trujillo, 46,304 (mining).

Monetary unit: Sol.

Languages: Spanish, Quéchua, Aymará (Indian).

Religion: Roman Catholic.

HISTORY. Peru, once part of the great Incan empire and later the major viceroyalty of Spanish South America, is more than three times the size of California. It was conquered in 1531–33 by Francisco Pizarro. On July 28, 1821, Peru proclaimed its independence, but the Spanish were not finally defeated until the Battle of Ayacucho on Dec. 9, 1824. For a hundred years thereafter the Peruvian course was rough. Revolutions were frequent, and a new war was fought with Spain in 1864–66. The dispute with Chile over Tacna and Arica was not finally settled until 1929, and war with Colombia over the Leticia Corridor was narrowly averted in 1931. Major economic development, mostly by foreign capital, began late in the last century. In World Wars I and II, Peru enjoyed cotton and copper booms. General Oscar Benavides became president in 1933 and vigorously set about suppressing popular rights and representative government. He was succeeded in 1939 by President Manuel Prado y Ugarteche.

Peru emerged from 20 years of dictatorship on July 28, 1945, with the inauguration of President José Luis Bustamante y Rivero after the first free election in many years. However, the change to a regime in which political prisoners were freed and the press was free to criticize was soon tempered by factional troubles within the government. As a result, in a cabinet reorganization of Jan. 12, 1947, three members of the leftist APRA party, which had contributed largely to Bustamante's election, were eliminated. The rightist-APRA cleavage came to a head on Oct. 28, 1948, when an army-led rightist revolt headed by Gen. Manuel A. Odria ousted Bustamante. Odria became provisional president on Oct. 31. He was unopposed in presidential elections held July 2, 1950.

GOVERNMENT AND DEFENSE. Under the 1933 constitution, Peru elects by popular vote every six years a president, two vice-

presidents and a bicameral Congress—a Senate of 47 members and a Chamber of 156 members. The president is ineligible to succeed himself. The cabinet, headed by the prime minister, is presidentially appointed, while Supreme Court judges are elected by the Congress from a presidential list. The central government names the executives of the 24 departments.

Military service is compulsory at the age of eighteen. The army had about 32,000 men in 1950. The air force, with 1,935 men and 90 planes in 1940, received 50 U. S. lend-lease craft in 1942. The 1951 navy had 2 old cruisers, 1 destroyer, 4 submarines, 6 frigates and escort craft and smaller units. There are about 10,000 police and civil guards.

SOCIAL AND ECONOMIC CONDITIONS. Peru, once the cultural center of Spanish South America, has an illiteracy rate of over 50 per cent. Education between 7 and 14 is free, compulsory and state-controlled. Primary schools numbered 10,333 in 1951 and enrolled 958,128 pupils; 98 state secondary schools had 41,209 students and 148 private secondary schools, some run by religious orders, had 21,023. Five universities had 12,111 students in 1947, including the University of San Marcos, founded in 1551 (oldest in America) with 8,102.

Most Peruvians are of mixed Spanish and Indian blood. The Indians come from three main stocks—Quéchua, Aymará (Colla) and Chuncho. The relatively large Asiatic population numbered 41,945 in 1940; in 1939 there were 22,738 alien Japanese.

Compulsory social security, established in 1936, covers illness, maternity, disability, old age and death; benefits are steadily being extended.

Land under cultivation is estimated at only slightly more than 10 per cent of the total area, with more than 80 per cent of the population being dependent upon agriculture. About one-eighth of the cultivated area in the irrigated coastal valleys of the central region is devoted to cotton, the most important crop (1951 production: 80,000 metric tons). Sugar (1951: 479,500 tons), rice, tobacco and coffee are exported, while wheat, corn, potatoes, beans, barley and quinoa (a grain similar to millet) are subsistence crops. Stock-raising, pursued in the Pacific highlands and the elevated parts of the Amazon slope, supplies most of the country's meat needs, as well as wool, hides and skins for export. Llamas, used as beasts of burden, and vicuñas and alpacas, noted for their wool, are native to Peru. Livestock estimates in 1949-50 showed 2,883,000 cattle, 18,518,000 sheep, 1,092,000 goats and (1948) 2,449,746 llamas and alpacas.

Industrialization has been slow. Aside from the copper smelters and oil refineries, the greatest progress has been made in the

textile industry, which obtains its raw materials from domestic cotton and wool and from imported silk.

Foreign trade statistics, in millions of soles, are as follows:

	1949	1950	1951
Exports	2,055	2,887	3,855
Imports	2,692	2,877	4,239

Chief exports in 1950 were cotton (35%), sugar (15%) and petroleum and products (13%). Chief suppliers were the U. S. (53%) and Britain (17%); chief customers, the U. S. (26%), Britain (17%) and Chile (15%). Principal imports are machinery and motor vehicles, foodstuffs (especially wheat), iron and steel manufactures, electrical goods and chemicals.

Highway mileage in 1949 totaled 19,468, of which more than a third is hard-surfaced; the Pan-American highway had a total Peruvian length of 1,818 miles. Railway mileage (1947) was 2,612, much of it over difficult territory. Several airlines supply domestic and international service. There are more than 5,400 miles of navigable tributaries of the Amazon in eastern Peru; the chief Amazon port is Iquitos, 2,653 miles from the Atlantic.

The 1952 budget balanced revenue and expenditure at 2,563,947,250 soles. The public debt on Dec. 31, 1950, was 1,652,483,311 soles. Foreign capital has played a large part in Peruvian economic development.

Peru has vast mineral resources. It ranks fourth in world silver production and mines about 25 per cent of the world's vanadium. But mining is second to agriculture, and nearly all of it is in the hands of foreign capital. Petroleum and copper are the most important, with the latter controlled by the American-owned Cerro de Pasco Corporation, which also accounts for much of the gold and silver output. In 1951, gold production was 144,367 oz.; silver, 14,856,194 oz.; copper (smelter), 25,170 short tons; lead, 48,824 tons; and zinc, 111,663 tons. Petroleum production in 1950 was 15,017,320 barrels; discovery of rich new deposits has been reported.

Peru's mineral production, however, varies greatly from year to year, depending on a variety of conditions. For example, from 1936 to 1939, vanadium production rose from 288 to 1,950 tons.

Forest products include rubber (1950: 1,479 long tons), balatá, raw quinine, vegetable ivory, mahogany, cedar, dye woods and coca, the source of cocaine. An important industry on the outlying islands is the gathering of guano (bird excrement), a valuable fertilizer used almost entirely domestically.

TOPOGRAPHY AND CLIMATE. The Andes Mountains divide Peru into three sharply differentiated zones. To the west is the

coastland, much of it arid, extending for 50 to 100 miles inland, and 1,400 miles long. The mountain area, with peaks over 20,000 feet high, lofty plateaus and deep valleys, lies centrally. Beyond the mountains to the east is the heavily forested slope leading to the Amazonian plains.

The climate ranges from tropical in the eastern lowlands to arctic among the snow-capped peaks. The coastal area has an average annual rainfall of less than 2 inches and temperatures ranging between 55° and 98°. Temperatures range from 75° to 95° in the humid Montaña, and rainfall between 75 and 125 inches annually.

The Philippines (Republic)

Area: 114,400 square miles.

Population (est. July 1, 1951): 20,945,800 (Filipino, except [1948] 121,702 Chinese, 6,955 Americans, 1,886 Spanish and 3,319 others).

Density per square mile: 183.1.

President: Elpidio Quirino.

Principal cities (est. 1951): Manila, 1,035,700 (seat of government, chief port); Cebu, 173,590 (seaport); Quezon City, 143,890 (legal, future capital); Basilan, 132,500 (lumber); Colocol, 119,050 (sugar); Davao, 116,160 (seaport).

Monetary unit: Peso.

Languages: English, Tagalog, Bisayan, Spanish, Ilocano, Bicol.

Religions (census 1948): Roman Catholic, 82.9%; Aglipayan (Independent Philippine Catholic), 7.6%; Mohammedan, 4.1%; Protestant, 2.3%; others and no religion, 3.1%.

HISTORY. Fernando Magellan, the Portuguese navigator in the service of Spain, discovered the Philippines on March 16, 1521, and 21 years later a Spanish exploration party named the group of islands in honor of Prince Philip, later Philip II of Spain. Spain retained possession of the islands for the next 350 years, although the Moros in the southern islands continued to harass the Spanish troops until 1850.

The Philippines were ceded to the United States in 1899 by the Treaty of Paris after the Spanish-American War. Meanwhile the Filipinos, led by Emilio Aguinaldo, had declared their independence. They continued guerrilla warfare against U. S. troops until the capture of Aguinaldo in March, 1901. By July, 1902, peace was established in all parts of the islands except those inhabited by Moros.

The first U. S. civilian governor-general was William Howard Taft (1901-04). The Jones Law (1916) provided for the establishment of a Philippine legislature composed of an elective Senate and House of Representatives. The Tydings-McDuffie Act (1934) provided for complete Philippine independence in 1946. Under a constitution approved by the people of the Philippines May 14, 1935, the Commonwealth of the Philippines was inaugurated on Nov. 15

under the presidency of Manuel Quezon y Molina, who was re-elected in 1941.

The Philippines were invaded by Japanese troops on Dec. 8, 1941 (Philippine time), and after the fall of Bataan and Corregidor, President Quezon and his government fled to Washington. The Japanese-sponsored "Philippine Republic" received little support from most Filipinos. U. S. forces led by Gen. Douglas MacArthur re-invaded the islands in Oct., 1944, and after the liberation of Manila (Feb., 1945), Sergio Osmeña, who had succeeded to the presidency on the death of Quezon (Aug. 1, 1944), re-established the government.

Brig. Gen. Manuel A. Roxas y Acuña, who defeated Osmeña in the elections of April, 1946, became first head of the new independent republic, which came into existence on July 4, 1946, as scheduled in the Tydings-McDuffie Act. He died April 15, 1948, and was succeeded by the Vice President, Elpidio Quirino, who pledged continuation of Roxas' domestic program and pro-U. S. foreign policy. He was re-elected on Nov. 8, 1949.

GOVERNMENT AND DEFENSE. Under the constitution of 1935 (as amended in 1940), the Philippines have a republican form of government based on that of the United States. Executive power is exercised by the president, popularly elected for a 4-year term and assisted by a cabinet appointed by him. The popularly elected Congress has two houses—the Senate with 24 members and the House of Representatives with 100 members.

The Philippine army has been reorganized and re-equipped with U. S. assistance. An agreement signed March 14, 1947, provided for the establishment, for a 99-year period, of 23 U. S. military, naval and air bases in the islands. A 5,000-man regimental combat team was dispatched to Korea in 1950. A mutual defense treaty with the U. S. was signed Aug. 30, 1951.

EDUCATION. In 1948, 3,811,981 pupils were enrolled at 19,116 primary schools and 549,659 pupils were enrolled at 1,328 secondary schools. There were 13 institutions for higher education, including the University of the Philippines, with 53,000 students. Tagalog is the national language but English and Spanish are used throughout the country.

AGRICULTURE AND INDUSTRY. Agriculture is the chief industry. Average size of the farms is 10 acres, but there are many large plantations. Rice (palay) is the staple native food cereal, but production (2,618,390 metric tons in 1951) is insufficient to meet home consumption. The Philippines normally produce about half the world copra supply and a large proportion of the abacá (Manila hemp) supply; they are also a leading source of sugar (1950-51: 930,230 metric tons) and sugar products,

normally the chief export. Other crops include sisal, kapok, cotton, corn, tobacco, coffee, rubber, cacao, citrus fruits and bananas. In the crop year 1950-51, 1,071,880 tons of copra, 29,870 tons of tobacco and 130,400 tons of abacá were produced. Live-stock in 1950 included 1,902,920 carabaos, the farmers' all-purpose animal, 698,060 cattle, 206,140 horses and 3,899,130 hogs.

Industry had made some progress prior to World War II, but private manufactures were still in their infancy. Industrial establishments suffered serious damage as a result of the war. A start has been made in sugar, rope, cigar, cigarette and furniture factories, lumber and rice mills, and modern factories producing beverages, perfumes, cosmetics and other consumer's goods. Preparation of fine embroideries is an important home industry.

FOREIGN TRADE. Statistics of trade, in millions of pesos, are as follows:

	1949	1950	1951
Exports	512	665	831
Imports	1,137*	712	959

* Excluding surplus property and relief shipments.

In 1951, the chief exports were copra (37%), sugar (16%), abacá (16%), coconut oil (6%) and timber and lumber (4%). Leading imports were cotton and manufactures (15%), grain, iron and steel and manufactures and petroleum products. The U. S. supplied 70% of the imports and took 63% of the exports in 1951.

FINANCE. Recent data are as follows (in millions of pesos):

	1950-51	1951-52*	1952-53†
Revenue	488.9	580.6	587.8
Expenditure	435.2	577.8	587.2

* Authorized. † Presidential budget.

The total public debt on Dec. 31, 1951, was 809,210,516 pesos, including certain bonded obligations of provinces, cities and other entities. In Apr. 1948, the U. S. Congress appropriated \$520,000,000 for the rehabilitation of the Philippines.

COMMUNICATION. Transportation facilities suffered especially severe damage during World War II. The inter-island trade—extremely important because of the makeup of the archipelago—is served by vessels licensed for domestic, coastwise and bay and river traffic. The port of Manila has ample facilities for ocean-going vessels. According to *Lloyd's Register*, the merchant marine had 92 vessels (100 tons and over) of 141,459 gross tons on June 30, 1951.

Railway mileage (1949) totaled 613, most of which (540 mi.) was on Luzon. Highways totaled 14,933 miles in 1946. Air transportation has assumed an important place in inter-island communication.

MINERALS, FORESTS AND FISHERIES. The Philippines possess large but relatively undeveloped mineral resources. Most important are gold, silver, iron ore, copper ore, chromite, manganese ore, lead and zinc. Petroleum formations are also known to exist. In 1951, 393,602 ounces of gold, 274,602 ounces of silver, 12,712 metric tons of copper concentrates, 301,835 tons of chromite (refractory), 32,736 tons of chromite (metallurgical), 22,343 tons of manganese ore and 903,382 tons of iron ore were mined.

The forest area is estimated at more than 43,700,000 acres (about 58 per cent of the total area), not including 3,200,000 acres covered with cogon grass, fit for grazing. About 97.5 per cent of the total forest area is government-owned. Lumber production totaled 460,145,152 bd. ft. in 1951 (preliminary); timber, 1,332,703,000 bd. ft.

Of the approximately 1,900 different species of fish, only about 100 kinds are marketed, although a majority are edible. Fish exports are chiefly canned tunas.

TOPOGRAPHY. The Philippines are an archipelago of approximately 7,083 islands lying about 500 miles off the southeast coast of Asia and bounded on the west and north by the South China Sea, on the east by the Pacific, and on the south by the Celebes Sea. They extend north and south about 1,152 miles and east and west about 688 miles. The northernmost island, Y'Ami, is 65 miles from Formosa, while the southernmost, Saluag, is 30 miles east of Borneo. Only 466 of the islands have an area of more than one square mile, and only 2,441 have names. The largest islands are Luzon in the north (40,814 sq. mi.), Mindanao in the south (36,906 sq. mi.), Samar (5,124 sq. mi.), Negros (4,903 sq. mi.), and Palawan (4,500 sq. mi.). The islands are the tops of an irregular, submerged mountain chain which is largely of volcanic origin. The plains lying amid the mountains are the most densely populated portions of the islands, except in Cebu, where the people live mostly on the coastal plain. Extensive drainage systems are provided by the numerous short rivers.

CLIMATE. The temperature is warm throughout the year, averaging 80°, with only slight variations. Rainfall averages about 90-100 inches annually, with the wettest season occurring from June or July through October. Typhoons, often causing severe damage, originate in the Pacific and strike the islands from the east and southeast before curving north.

Poland (People's Republic)

(Rzeczpospolita Polska)

Area: 119,703 square miles.

Population (census 1950): 24,976,926.

Density per square mile: 208.7.

President: Boleslaw Bierut.

Premier: Joseph Cyrankiewicz.

Principal cities (census 1950): Warsaw, 650,064 (capital); Łódź, 619,914 (industrial center); Kraków, 330,946 (commercial center); Poznań, 320,294 (farm products); Wrocław (Breslau), 289,734 (former German industrial center).

Monetary unit: Złoty.

Language: Polish (more than 90%).

Religions: Roman Catholic, Jewish, Protestant.

HISTORY. A victim of aggression and partition throughout the ages, Poland found history repeating itself in World War II. Her area was reduced from that of California to that of New Mexico, and her population was cut by 11,000,000. Her people reeled from the combined effects of the cruel German occupation, a severe famine and general postwar instability. Her postwar government was in the hands of a small Communist minority which allowed little democratic opposition. Economic reconstruction has continued at a steady pace, but externally Poland remains subservient to the U.S.S.R.

Little of certainty is known about Polish history prior to the end of the 10th century. Early in the 11th century the Polish king, Boleslaus I (the Brave), ruled over Bohemia, Saxony and Moravia. Mongol invasions in 1241 and 1259 were repelled with accompanying devastation. Meanwhile, the Teutonic Knights were erecting in Prussia a state which included part of Poland and barred the latter's access to the Baltic. The Knights were defeated by Wladislaus II (1386-1434) at Tannenberg in 1410 and became Polish vassals under the Peace of Thorn (1466), by which Poland regained a Baltic shoreline.

Poland reached the peak of its power between the 14th and 16th centuries. The 16th century was marked by a constant growth of power on the part of the lesser nobility with a corresponding weakening of the Crown, which became elective in 1572. In succeeding years, Poles scored many military successes against the Russians and Turks. In 1683, King John Sobieski, a famous military leader, turned back the Turkish tide near Vienna.

These successes did not halt the process of decline which resulted from the lack of strong central authority, and Prussia, Russia and Austria were able to carry out a first partition of the country in 1772, a second in 1792 and a third in 1795-96. For more than a century thereafter, there was no Polish state, but the Poles never ceased their efforts to regain their independence. World War I found them fighting unhappily on both sides.

The independence of Poland was formally proclaimed in Nov., 1918, and Marshal Josef Pilsudski was confirmed in office as

President. In 1919, Ignace Paderewski, famous pianist and patriot, became the first premier. Russia attacked Poland in 1920 but the Poles, under Marshal Pilsudski and aided by the French, defeated the invaders. On May 12, 1926, Marshal Pilsudski seized complete power in a coup d'état and ruled the country dictatorially until his death on May 12, 1935, when he was succeeded by Marshal Edward Smigly-Rydz.

Despite a 10-year non-aggression pact signed with Germany in 1934, Hitler attacked Poland on Sept. 1, 1939. Russian troops invaded from the east Sept. 17, 1939, and on Sept. 28 a German-Russian agreement was signed dividing Poland between Russia and Germany. Before leaving Poland, President Ignacy Moscicki resigned, designating as his successor W. Raczkiewicz; the latter formed a government-in-exile in France with Gen. Wladyslaw Sikorski as premier; this government moved to London after France's defeat in 1940. All of Poland was occupied by Germany after the Nazi attack on the Soviet Union in June, 1941. On July 30, 1941, Poland concluded an agreement with the U.S.S.R. voiding all German-Soviet agreements effected after Sept. 1, 1939.

The legal Polish government soon fell out with the Russians, however, and in July, 1944, a Communist-dominated Polish Committee of National Liberation received Soviet recognition. Moving to Lublin after that city's liberation, it proclaimed itself the Provisional Government of Poland on Dec. 31, 1944. After almost six months' negotiations, some of the former members of the Polish Government in London joined with the Lublin government to form the Polish Government of National Unity on June 28, 1945. Great Britain and the U. S. recognized this government on July 5, 1945, and withdrew recognition from the London government.

Democratic participation was negligible in the new government, which had adhered strictly to Soviet foreign policy and pursued a program of internal socialization. The government bloc controlled by the small Communist minority won a sweeping victory in the Jan., 1947, elections, which gave little opportunity to the opposition for campaigning or voting.

On Aug. 2, 1945, in Berlin, Prime Minister Attlee, President Truman and Generalissimo Stalin established a new *de facto* western frontier for Poland, along the rivers Oder and Lausitzer Neisse, pending the final peace treaty. On Aug. 16 the Soviet Union and Poland signed a treaty delimiting the Soviet-Polish frontier. Under these agreements Poland was shifted westward. In the east it lost 69,860 square miles with 10,772,000 inhabitants; in the west it gained (subject to final peace conference approval) 38,986 square miles with a pre-

war population of 8,621,000. By 1948 all Germans in the latter area had been expelled and replaced with Poles who lived formerly in the territory ceded to the U.S.S.R., or in Germany or other countries.

GOVERNMENT AND DEFENSE. Poland is a republic headed by a president chosen for a seven-year term by the Parliament, which consists of 444 members popularly elected for a seven-year term. The administration of the government is carried on by a council of ministers headed by the premier.

The Interim Constitution approved by Parliament on Feb. 20, 1947, provides for a 5-member State Council with far-reaching powers and gives the cabinet wide powers when Parliament is not in session.

Poland's army in late 1950 numbered about 510,000, organized along Soviet lines with Soviet assistance and matériel. Numbers of security troops organized in paramilitary formations maintain internal order under the direction of the Interior Ministry. In 1951 the navy had 2 destroyers, 4 submarines and some minesweepers and coastal craft.

SOCIAL AND ECONOMIC CONDITIONS.

In the school year 1948-49 there were 22,131 primary schools with 3,241,046 pupils. Secondary schools numbered 844 with 338,003 pupils. The three pre-1939 state universities of Warsaw, Kraków and Poznań, and the private (Catholic) university of Lublin re-opened in the fall of 1945. New universities have been founded at Lublin, Gdansk (Danzig), Wrocław (Breslau), Toruń and Łódź. Students enrolled in 83 universities and other institutions of higher learning numbered 123,500 in 1951-52. Education is free and compulsory up to 18.

Poland remains essentially an agricultural country: the areas now under *de facto* Polish administration in the west accounted for 25 per cent of Germany's prewar food production. About 70 per cent of postwar Poland is arable land. Much of it has been divided into small farms under the land reform program. Before World War II, Poland exported large quantities of farm products. Farm lands lost to the Soviet Union were considerably larger in area than those gained from Germany; as a result, recent harvests have barely met domestic needs, even though the population has been reduced 30 per cent.

Agricultural production figures in 1951, in metric tons, included wheat, 2,280,000; sugar beets, 6,900,000; (1950) rye, 6,502,000; oats, 2,126,000; potatoes, 36,835,000. In Dec. 1950, there were 2,797,000 horses, 7,164,000 cattle, 9,928,000 hogs and 2,194,000 sheep.

Poland's industrial facilities, although severely damaged during World War II, were not greatly affected by territorial con-

cessions to the U.S.S.R., with the exception of the Lwów area. On the other hand, important German industrial areas, especially Silesia and the city of Stettin, are located in the territories under *de facto* Polish administration. As a result, postwar Poland has a much larger industrial potential. Almost all industries have been nationalized or placed under state control, and a planned economy has been introduced as part of the government's drive to make Poland an industrial nation. Under the impetus of a three-year program of economic reconstruction initiated in 1947, the rehabilitation of Polish industry has been relatively rapid. That program was completed ahead of schedule in 1949, and a new six-year program was launched in 1950. Production of steel ingots and castings was about 2,800,000 metric tons in 1951.

Foreign trade is largely conducted by government organizations under the terms of numerous trade agreements with other nations. Statistics, in millions of U. S. dollars, are as follows:

	1947	1948	1949
Exports	245*	534*	619*
Imports	453†	519	633

* Excluding special coal shipments to the U.S.S.R. valued at \$60,000,000 in each year.

† Including relief, war surplus and reparations shipments valued at \$153,000,000.

In 1948 the Soviet Union supplied 23 per cent of imports, followed by Britain (8%), the U. S. (6%) and Germany (6%). The Soviet Union took 21 per cent of exports, followed by Sweden (13%), Britain (8%) and Germany (8%).

Poland stopped publishing detailed data on foreign trade in 1949. Exports in 1949 were unofficially reported to be divided as follows: coal and coke (46%), other raw materials and semimanufactures (18%), and agricultural products (mainly bacon and ham) and consumer's goods (20%). Major imports were machinery, textiles, chemicals and mineral products.

The 1951 budget estimated revenue at about 58,000,000,000 zlotys, expenditure at 52,000,000,000 zlotys. The budget includes the accounts of all administrative and economic units, including schools and hospitals, and is in effect a financial plan of the economy. Under the drastic monetary reform effected in late 1950, prices, wages and taxes were uniformly reduced to 3% of their previous levels, and the zloty was placed at par with the Soviet rouble.

The merchant marine had 132 vessels (of 100 tons and over) of 236,986 gross tons on June 30, 1951. The principal ports are Gdynia, with one of the largest harbors in Europe, Gdansk (Danzig) and the former German port of Stettin. Transportation facilities and rolling stock suffered heavy damage during World War

II—a factor still hampering Poland's economic recovery. There are about 61,000 miles of public highway, 4,800 miles of inland waterways and 15,500 miles of railway.

The acquisition of large coal deposits in German Silesia (estimated at more than 5,000,000 tons), combined with much larger reserves in the southwestern region, makes Poland one of the world's leading coal producers. The 1951 output was 81,000,000 metric tons, a third of which was produced in former German territory. Iron ore deposits are located in the Kielce and Radom districts and in German Silesia. Production in 1948 was 650,000 tons. Zinc and lead ores are located chiefly in Upper Silesia and the voivodships of Kielce and Kraków. Prewar Poland's principal oil-producing areas, Boryslaw-Drohobycz, are in the territory ceded to the Soviet Union; 1948 production was 1,000,000 barrels (about 25% of prewar). Among other deposits, Poland possesses copper, sulfur, chalk, clay, kaolin, marble and granite.

Forests cover 22 per cent of the land, but important wood resources are located in the territory ceded to the Soviet Union, and current production supplies less than half the annual need.

TOPOGRAPHY AND CLIMATE. Most of Poland is a plain with no natural boundaries except the Carpathian Mountains on the south and the Oder and Neisse Rivers on the west. Pomerania is traversed by a range of low hills, while south of Gdansk is a maze of marshes, sand dunes and muddy lakes which extend into Polish East Prussia (Mazuria). The central Polish plain, 300 to 450 feet above sea level and intersected by great rivers, lies south of the flat country along the Baltic shore. Southern Poland and Silesia are hilly regions, while on the right bank of the Vistula is the plateau of Lublin.

Poland's climate is dependent upon her proximity to the Baltic and to the Carpathian Mountains. Abundant rainfall (annual average: 22.8 in.) is caused by the predominating western oceanic winds. Snowfall is not heavy, but temperatures below zero are not uncommon, and the rivers are generally icebound for two and a half to three months each year.

Portugal (Republic)

(República Portuguesa)

Area: 35,413 square miles.
Population (census 1950*): 8,490,000 (practically all Portuguese).
Density per square mile: 239.7.*
President: Gen. Francisco Higinio Craveiro Lopes.
Premier: António de Oliveira Salazar.
Principal cities (census 1940): Lisbon (Lisboa), 1948: 796,227 (capital, seaport); Oporto (Porto), 262,309 (seaport, port

wine); Funchal (in Madeira Islands), 54,856 (Madeira wine); Coimbra, 35,437 (university); Setúbal, 35,071 (seaport, sardines).

Monetary unit: Escudo.

Language: Portuguese.

Religion: Roman Catholic.

* Preliminary figures.

HISTORY. Rolling and rugged Portugal is about the size of Indiana and, thanks to the days when its sailors and explorers were among the world's most venturesome, has a colonial empire 23 times the area of the homeland. A traditional ally of Britain, Portugal remained neutral in World War II but gave the Allies the right to use vital island bases in the Atlantic. Politically, Portugal is a virtual dictatorship; opposition is officially suppressed, and many phases of the national life are strictly regimented.

Portugal was part of Spain until it won independence in 1143 with Alfonso I as the first king. During the long reign of King John I (1385-1433), a great commercial empire was built, largely through the exploratory hobby of the king's son, Prince Henry the Navigator. Bartholomeu Diaz explored Africa's west coast and reached the Cape of Good Hope in 1488. Vasco da Gama rounded the Cape and discovered the water route to India in 1497-99. Portugal's empire reached its crest about 1540, when it embraced the coast of Brazil, east and west Africa, Malabar, Ceylon, Persia, Indo-China and Malaya.

In 1580-81 Spain and Portugal were joined in a personal union under Philip II of Spain. Portugal revolted in 1640 and set up a new dynasty under John IV, Duke of Braganza, but the country never recovered its position as one of Europe's major powers. In 1806, when Portugal refused to obey Napoleon's orders that all continental ports be closed to British ships, French forces invaded the country but were ousted in 1811 by British and Portuguese forces under the Duke of Wellington. The royal family had fled to Brazil in 1807 but following an uprising at home, the king, John VI, returned in 1821.

Brazil declared its independence in 1822 and John's son, Pedro, became emperor of the new state as Pedro I. In 1832, Pedro I, who had abdicated as emperor of Brazil in 1831, returned to Europe and led an uprising with British assistance in favor of his daughter, Maria II, displacing his younger brother, Miguel I, who had been proclaimed king in 1828. The descendants of Maria's marriage with Ferdinand of Saxe-Coburg ruled Portugal until 1910, when King Manoel II was forced into exile by a republican revolt.

On June 19, 1911, the monarchy was abolished, and a republican constitution was introduced. Portugal proclaimed its loyalty to the British alliance upon the

outbreak of World War I, and Portuguese troops fought both in Africa and on the Western Front. There was much internal political instability during and immediately after the war.

On May 30, 1926, a revolution led by the army deposed the president and set up a military dictatorship. General António Oscar de Fragoso Carmona became premier and acting president Nov. 29, 1926, and was elected president on March 25, 1928. Dr. António de Oliveira Salazar, who was appointed finance minister in 1928, founded the organization known as the National Union in 1930 and has been premier and dictator since 1932. His regime, while admittedly opposed to liberal or democratic principles, has brought political and economic stability to Portugal. President Carmona was re-elected in 1935, 1942 and 1949. General elections for members of the National Assembly held on Nov. 13, 1945, and on Nov. 13, 1949, were boycotted by the opposition, and the National Union was continued in office. Portugal adhered to the North Atlantic Pact in April, 1949.

President Carmona died April 18, 1951; Gen. Francisco Lopes was elected without opposition to succeed him July 22, 1951.

GOVERNMENT AND DEFENSE. Under the constitution of 1933 Portugal is a corporative republic. The president is popularly elected for a term of 7 years; the National Assembly of 120 members for a term of 4 years. There is also a corporative chamber which handles economic, social and some legislative matters; its 105 members are representatives of local autarchies and of the several branches of social activities—administrative, moral, cultural and economic. The Assembly theoretically may overrule the president's veto by two-thirds vote. The president appoints the premier, who in turn selects the cabinet; the latter is not responsible to the National Assembly.

Military service is compulsory; the initial training period is 6 years, but not all those liable for duty are called up. The army numbered about 64,000 in 1951 (including the Portuguese Legion, a volunteer force); the air force had 575 planes in 1949. The navy in 1951 had 5 destroyers, 6 submarines, 8 sloops and several smaller craft. Naval personnel numbers about 7,000.

SOCIAL AND ECONOMIC CONDITIONS. Compulsory education was introduced in 1911. Elementary schools in 1948-49 numbered 10,646 with 598,100 students. Secondary schools numbered 42 with 19,997 pupils. Private elementary schools were attended by 60,168 pupils; private secondary schools by 25,316. There were 3 universities (Coimbra, Lisbon and Oporto), with 8,883 students.

Portugal's corporate state has a planned economy in which each producing unit regulates itself in the interest of the nation. Corporate units have been established in agriculture, industry and finance. As an example, the government controls the wine trade by means of a federation of growers and a guild of exporters.

Sixty per cent of Portugal's people are engaged in agriculture. Although wheat is the leading crop, it is insufficient to meet domestic needs, and grain must be imported. One of the world's leading wine-makers, Portugal produces two famous kinds—Port in the vicinity of Oporto, and Madeira in the islands of the same name. In olive oil production, Portugal usually ranks third in the world (production 1951: 82,000 metric tons).

Leading crops in 1951, in metric tons, were wheat, 604,000; barley, 137,000; oats, 147,000. Wine production in 1951 was about 210,000,000 U. S. gallons (1939-48 average: 241,000,000 gallons).

Livestock in 1948 included 1,000,000 cattle, 4,000,000 sheep and 1,200,000 hogs. Wool production in 1949 was approximately 8,000 metric tons.

Portuguese manufacturing is largely limited to consumer's goods for domestic consumption. Besides the production of porcelain tiles, it includes a sizable textile industry.

Trade statistics, in millions of escudos:

	1949	1950	1951*
Exports	4,091	5,334	7,565
Imports	9,061	7,904	9,489

* Preliminary.

In 1951, the principal customers were the Portuguese overseas territories (23%), Britain (19%) and the U. S. (13%); chief suppliers, Britain (15%), the U. S. (15%) and the Portuguese territories (12%). In 1950, chief exports were textiles (20%), cork (17%), wine (11%) and fish, mainly sardines (10%). Leading imports included wheat and flour, ships, industrial machinery, raw cotton and iron and steel.

On June 30, 1951, the merchant marine had 306 vessels (100 tons and over) of 491,546 gross tons. Railway mileage in 1949 was 2,240, and highway mileage was 16,697.

Recent financial data are as follows (in millions of escudos):

	1950	1951	1952*
Revenue	4,826	4,100	5,970
Expenditure	5,020	5,177	5,966

* Budget estimate.

The net public debt (Dec. 1950) was 12,337,000,000 escudos.

Mineral resources have not been fully developed, but wolfram, coal, iron ore, copper, manganese, iron pyrites, lead, tin,

and other ores are found. The coal output in 1950 was 520,000 metric tons; iron pyrites, 613,521 tons; wolfram, 2,199 tons; lead, 2,040 tons; (1949) kaolin, 19,663 tons. Uranium deposits have been reported.

Portugal is one of the world's leading producers of cork; production in 1949 was 103,108 metric tons. In 1950, 53,660 metric tons of resin and 11,282 tons of turpentine were exported.

The fishing industry is a basic part of the national economy, employing about 43,000 men and 15,300 boats in 1947. Of special importance is the sardine industry centered at Setúbal, south of Lisbon. The total fishery catch in 1949 was 184,347 metric tons, valued at 882,000,000 escudos.

TOPOGRAPHY AND CLIMATE. Portugal occupies a rectangular area about 360 miles long and 140 miles wide in the southwestern part of the Iberian Peninsula. It is crossed by many small rivers, and also by three large ones which rise in Spain, flow into the Atlantic, and divide the country into three geographic areas. The Minho (Miño in Spain) River, part of the northern boundary, cuts through a mountainous area that extends south to the vicinity of the Douro (Duero) River. South of the Douro the mountains slope to the plains about the Tagus (Tejo) River. The remaining division is the southern one of Alentejo.

The Azores, stretching over a distance of 400 miles in the Atlantic, consist of 9 islands divided into three groups, with total area of 888 square miles. The nearest continental land is Cape da Roca, Portugal, which lies 800 miles to the east. The Azores are an important station on Atlantic air routes, and both Britain and the United States established air bases there during World War II. Madeira, consisting of two inhabited islands, Madeira and Porto Santo, and two groups of uninhabited islands, lies in the Atlantic about 535 miles southwest of Lisbon. Total area of the Madeiras is 314 square miles.

Portugal's climate is equable and temperate, but in the deep valleys where the mountains keep out the cool winds from the Atlantic, it is excessively hot in summer. Lisbon, Coimbra and Oporto all have mean temperatures of 60° to 61.5°. Heavy fogs are common along the coast. Rainfall has been as great as 16 feet a year. It is heaviest in the north and on the Serra da Estrella.

PORTUGUESE OVERSEAS TERRITORIES

	Area, sq. mi.	Population, census 1950
AFRICA		
Angola (Portuguese West Africa)	487,788	4,145,184
Cape Verde Islands	1,539	147,097
Mozambique (Portuguese East Africa)	297,654	5,732,317

Portuguese Guinea	13,944	508,970
São Tomé and Príncipe Islands	372	62,159
ASIA		
Macao	5	500,000*
Portuguese India	1,538	672,000*
Timor	7,330	434,000*

* Estimate.

The status of the Portuguese overseas territories is fixed by the Colonial Act of July 1930 included in the constitution approved March 19, 1933, and revised in 1951. Each territory has a governor or governor general, appointed by the council of ministers for an initial 4-year term and responsible to the minister of overseas territories at Lisbon. Each territory has financial and administrative autonomy.

ANGOLA (Portuguese West Africa)—Status: Overseas territory.

Capital: Loanda (population 141,722). Governor General: José Agapito da Silva Carvalho.

Foreign trade (1951): exports, 3,189,277,-000 escudos; imports, 2,179,296,000 escudos. Chief exports: coffee (48%), sisal.

Agricultural products (1951): sugar, 48,-617 metric tons; cotton, 14,295 tons; sisal, 23,500 tons; coffee (exports), 64,433 tons; maize; palm kernels and oil; peanuts; rice.

Minerals: diamonds (1951: 734,324 carats), lignite, copper.

Forest products: beeswax, timber.

Industries: sugar, palm oil, whale oil, fish oil.

Angola stretches along the west African coast for about 1,000 miles from Belgian Congo to the Cunene River. Outside of a coastal plain varying in width from 30 to 100 miles, the area is part of the great African plateau. The Angola coast and the Congo River were explored by the Portuguese in 1482-85, and Loanda was founded in 1576. Agreements concluded with the Congo Free State, Germany and France in 1885-86 (later modified in details) fixed the limits of the province except in the southeast, where the frontier was determined by the Anglo-Portuguese agreement of 1891 and the arbitration award of the King of Italy in 1905. The governor general is assisted by a council of 10 (5 officials and 5 Portuguese nationals).

Angola is primarily an agricultural country. Its varied altitude enables it to produce both tropical and temperate crops. Excellent grazing land exists in many parts of the colony, and there are more than 1,200,000 cattle. Railways total 1,770 miles, and primary roads 21,949 miles. The chief ports are Loanda and Lobito. The great majority of the population are of Bantu-Negro stock, mixed in the Congo district with the pure Negro. Europeans in 1950 numbered 78,903; half-castes, 29,550.

Mean annual temperature at Loanda is 74.3°; the cool season lasts from June to September, the wet from October to May.

CAPE VERDE ISLANDS—Status: Overseas territory.

Capital: Praia (population 6,188).

Governor: Carlos Alberto Garcia Alves Roçadas.

Foreign trade (1950): exports, 227,600,000 escudos; imports, 245,700,000 escudos. Chief exports: salt, preserved fish.

Agricultural products: coffee, millet, castor oil, oranges, hides.

This group of 14 volcanic islands lying off the west African coast was discovered in 1456 by the Venetian captain Alvise Cadamosto, in the service of Prince Henry the Navigator. The island of São Vicente is an important coaling station on the South American route. The vast majority of the inhabitants are mulattoes (101,284 in 1943) and Negroes (51,070)—descendants of slaves brought to the islands from Africa by early settlers. Public slavery was abolished in 1854, and private slavery in 1876. Europeans in 1940 numbered 5,580.

Summer temperatures are high in the archipelago, ranging up to 90° near the sea. The rainy season lasts from August to October.

MOZAMBIQUE (Portuguese East Africa)

—Status: Overseas territory.

Capital: Lourenço Marques (population 68,223).

Governor General: Gabriel Maurício Telxela.

Foreign trade (1951): exports, 1,254,688,000 escudos; imports, 2,043,686,000 escudos. Chief exports: cotton (25%), sisal (20%), copra, sugar.

Agricultural products (1951): cotton (unginned), 25,348 metric tons; sugar, 84,770 tons; (1950) sisal, 18,444 tons; copra, 43,990 tons; tea, 2,814 tons; cashew nuts, vegetable oils, maize.

Minerals: gold (1951: 996 oz.), coal, graphite, mica.

Forest products: mangrove bark, timber.

Mozambique, stretching for about 1,430 miles along Africa's southeast coast, was discovered by Vasco da Gama in 1498, although the Arabs had penetrated into the area as early as the 10th century A.D. It was first colonized in 1505, and by 1510 the Portuguese were masters of all the former Arab sultanates on the east African coast. The boundaries with British Central and South Africa were delimited in 1891, and with Tanganyika Territory in 1886 and 1890. By the Treaty of Versailles, following World War I, Portugal was allotted the Kionga triangle, formerly part of German East Africa. One of the four provinces—Manica and Sofala (87,454 sq. mi.)—was held by the Mozambique Company until 1942, when the Portuguese Government refused to renew its charter.

Agriculture is the chief industry. There are many large plantations, some of which are partially mechanized. Stockraising is hampered by prevalence of the tsetse fly.

Ninety-nine per cent of the inhabitants are native Africans of the Bantu Tribes. In

1945 there were 31,191 Europeans and 11,365 Asiatics. There are 1,652 miles of railway and 18,078 miles of road, mostly unimproved. The chief ports are Lourenço Marques and Beira, which is also the port for Rhodesia. The principal river, the Zambezi, divides the colony in half.

The cool season lasts from April to August, and the rainy season from December to March. On the central coast the mean annual temperature is about 85°.

PORTUGUESE GUINEA—Status: Overseas territory.

Capital: Bissau (population 5,700).

Governor: Raimundo António Rodrigues Serrão.

Foreign trade (1949): exports, 160,800,000 escudos; imports, 142,200,000 escudos. Chief export: peanuts (44,300 metric tons).

Agricultural products: peanuts, palm kernels, hides, rice.

Forest products: wax, timber.

This area, lying on the west African coast and almost surrounded by French West Africa, was discovered in 1446 by the Portuguese Nuno Tristão and was separated from the colony of the Cape Verde Islands in 1879. It consists of a low-lying coastal region and 60 islands off the coast. The country is undeveloped economically, and most of the natives are farmers. There are no railways, but navigable rivers totaling over 1,000 miles are important trade arteries; there are also about 1,820 miles of roads. About two-fifths of the natives are Moslem; there were 1,419 Europeans in 1940. On the coast, temperature varies between 77° in January and 85° in May. The dry season lasts from December to May.

SÃO TOMÉ AND PRÍNCIPE—Status: Overseas territory.

Capital: São Tomé (population 2,605).

Governor: Carlos de Sousa Gorgulho.

Foreign trade (1950): exports, 209,500,000 escudos; imports, 109,100,000 escudos. Chief exports: cacao, coffee, copra.

Agricultural products: cacao, coffee, coconuts, copra, palm oil.

These volcanic islands, lying in the Gulf of Guinea about 150-175 miles off the west African coast, were discovered by the Portuguese in 1471. Most of the early inhabitants were convicts and Jews from Portugal and slaves from Brazil and the mainland, but the bulk of the present inhabitants are Negro contract laborers from the mainland and Cape Verde engaged to work cacao plantations.

MACAO—Status: Overseas territory.

Capital: Macao (population 148,456).

Governor: Joaquim Marques Espartelro.

Chief exports: fish, cement, preserves.

Manufactures: cement, preserves, fire-crackers, vegetable oils, metal products.

Macao comprises the peninsula of Macao and the two small islands of Taipa and Colôane on the south China coast, about 36 miles from Hong Kong. Established by

the Portuguese in 1557, it is the oldest European outpost in the China trade, but Portugal's sovereign rights to the port were not recognized by China until 1887, and its boundaries are still not delimited. The port has been eclipsed in importance by Hong Kong, but it is still a busy distribution center, and also has an important fishing industry employing over 40,000 people. It is notorious for its opium trade and gambling houses. Portuguese number about 4,000.

PORTUGUESE INDIA—Status: Metropolitan province.

Capital: Panjim (Nova Gôa) (population 12,000).

Governor General: Fernando Quintanilha de Mendonça Dias.

Foreign trade (1947): exports, 50,524,000 escudos; imports, 338,859,000 escudos. Chief exports: fish, spices, copra.

Agricultural products: cashew nuts, coconuts, spices.

Minerals: manganese, salt.

The area consists of Gôa and 3 islands on the Malabar coast of India; Damão and the territories of Dadará and Nagar-Aveli, on the Gulf of Cambay; and Diu, with the continental territories of Gocola and Simbor, on the coast of Gujarat. Gôa, captured in 1510 by the Portuguese, later became capital of the whole Portuguese empire in the east. The native population is largely Hindu.

TIMOR—Status: Overseas territory.

Capital: Dili (population 7,000).

Governor: Cesar Maria de Serpa Rosa.

Foreign trade (1949): exports, 13,400,000 escudos; imports, 37,600,000 escudos. Chief exports: coffee, sandalwood, wax, copra.

Agricultural product: coffee (exports 1947: 2,100 short tons).

Forest products: sandalwood, wax.

Portuguese Timor consists of the eastern half of the island of Timor in the Malay Archipelago, with the territory of Ambeno and two neighboring islands. It was first settled by the Portuguese early in the 16th century. In 1859 the island was divided between Portugal and the Netherlands; later boundary adjustments were made in 1904. Fishing and copra manufacture are important; trade is mostly in the hands of Chinese, Malaysians and Arabs. The colony was occupied by Dutch and Australian troops in Dec., 1941, and by the Japanese in Feb., 1942.

Rumania (People's Republic)

(Republica Populara Româna)

Area (est.): 91,934 square miles.

Population (est. 1950): 16,094,000 (1948: Rumanian, 85.7%; Magyar, 9.4%; German, 2.2%; Jews, 0.9%; others [Turkish, Ruthenian, Bulgarian, Gypsy, Ukrainian] 1.8%).

Density per square mile: 175.1.

Chairman of presidium: Constantin Păchon.

Premier: Gheorghe Gheorghiu-Dej.

Principal cities (est. 1945): Bucharest, 984,619; census 1948: 1,401,807 (capital); Cluj, 110,956 (Transylvanian industrial center); Jassy, 108,987 (trading center, Moldavia); Timisoara, 108,296 (western commercial center); Ploesti, 105,114 (oil).

Monetary unit: Leu.

Languages: Rumanian, Hungarian, German, Turkish.

Religions (est. 1947): Eastern Orthodox, 81%; Greek Catholic, 9%; Roman Catholic, 7%; others, 3%.

HISTORY. In World War I, Rumania joined the Allies and won enough land at the peace conference to double its size. In World War II, Rumania joined the Axis and lost about half its earlier gains. Its present size is about that of Oregon. Politically, it is dominated by the Soviets.

Most of Rumania was the Roman province of Dacia from about A.D. 100 to 275. From the 6th to the 12th centuries, wave after wave of barbarian conquerors—Vlachs, Bulgars and others—passed over the area. Of the two regions which eventually became Rumania, Walachia was taken by the Turks in 1411, and Moldavia in the 16th century, but both retained semi-autonomy. After the Russo-Turkish War, they went under *de facto* Russian protection in 1774.

The Treaty of Paris following the Crimean War nominally united the two provinces in 1858, and Alexander Cuza was elected Prince of Moldavia and Walachia. In 1866 he was forced to abdicate and was succeeded by Prince Carol of Hohenzollern-Sigmaringen. The Treaty of Berlin recognized Rumania's complete independence in 1878, and in 1881 the principality was elevated to a kingdom. Rumania's spoils from the Second Balkan War in 1913 included the Black Sea province of Dobruja. The following year King Carol I was succeeded by his nephew, Ferdinand. The gains of World War I, making Rumania the largest Balkan state, included Bessarabia, northern Transylvania and Bukovina. The Banat, a Hungarian area, was divided with Yugoslavia.

In 1926 Crown Prince Carol renounced his rights to the throne, and when King Ferdinand died on July 20, 1927, Carol's son, Michael (Mihai) became king under a regency. However, Carol returned from exile in 1930, was crowned King Carol II, and gradually became a powerful political force in the country. On Feb. 10, 1938, he abolished the democratic constitution of 1923. On June 21, 1940, the country was reorganized along fascist lines, and the fascist Iron Guard became the nucleus of the new totalitarian party. On June 27, the Soviet Union occupied Bessarabia and northern Bukovina. By the Axis-dictated Vienna Award of Aug. 30, 1940, two-fifths of Transylvania went to Hungary. On Sept. 4, the king dissolved Parliament and

granted the new premier, Ion Antonescu, full power, after which he abdicated and went into exile with his mistress, Magda Lupescu, whom he married in 1947 when she became gravely ill. The first official act of his son, Michael I, was to confirm Antonescu in his status as head of the state and premier. Rumania subsequently signed the Axis Pact on Nov. 23, 1940, and the following June joined in Germany's attack on the U.S.S.R., reoccupying Bessarabia. Following the invasion of Rumania by the Red Army in Aug., 1944, King Michael led a coup d'état which ousted the Antonescu government. The new cabinet, headed by Constantin Sănătescu, included Socialist and Communist representatives. An armistice was signed Sept. 12 in Moscow.

Sănătescu was replaced on Dec. 6, 1944, by Nicolai Rădescu, who in turn yielded on March 6, 1945 to Petru Groza. The latter formed a cabinet made up of members of the National Democratic Front (NDF), a political group formed by Communists, Social Democrats and subsidiary parties. Two opposition members were added to the cabinet Jan. 7, 1946, as one result of the Moscow Conference of Foreign Ministers, and on Feb. 5 the U. S. and Britain recognized Rumania conditional upon the holding of free elections. Elections, held Nov. 19, 1946, resulted in a victory for the Communist-dominated government bloc headed by Groza, who was reappointed premier with an all-NDF cabinet on Nov. 29. Rumania was under complete Soviet political and economic domination. King Michael abdicated on Dec. 30, 1947, and thereafter the nation was declared a "people's republic." Elections held on March 28, 1948, gave 405 of the 414 seats in the National Assembly to the Communist-dominated government bloc.

In a major shakeup, Groza was replaced as premier on June 2, 1952, by Gheorghe Gheorghiu-Dej, Communist-party secretary general. At the same time Ana Pauker, vice premier and foreign minister and once believed the most powerful figure in Rumania, was ousted.

GOVERNMENT. In 1948 the Grand National Assembly adopted a Soviet-type republican constitution, under which virtually all the powers formerly vested in the king are exercised by a 19-member presidium of the National Assembly. Executive power is vested in the cabinet, and legislative power in the unicameral Assembly.

PEACE TREATY OF 1947. The Paris peace treaty ratified on Sept. 15, 1947, confirmed the *de facto* cession to the Soviet Union of Bessarabia and northern Bukovina, the return to Rumania from Hungary of northern Transylvania (thus annulling the Vienna Award of 1940) and the cession of southern Dobruja to Bulgaria. In addition,

Rumania was required to pay reparations in kind in the amount of \$300,000,000 (reduced to \$225,000,000 by the U.S.S.R. in 1948) to the Soviet Union over a period of eight years. She also was to make compensation in lei to the amount of two-thirds of the original value of Allied property damaged or destroyed in Rumania.

The treaty limited the strength of the Rumanian armed forces as follows: army 125,000 men, navy 5,000 men and tonnage of 15,000, air force 8,000 men and 150 planes. The Soviet Union has the right to maintain line-of-communication troops in Rumania until a treaty with Austria becomes effective. The armed forces are being reorganized and re-equipped with Soviet assistance.

Despite treaty limitations, the total of Rumanian armed-forces personnel was estimated at almost 300,000 in 1951.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and compulsory. In 1950 there were 14,000 elementary schools. There are four universities—at Bucharest, Jassy, Cluj and Timisoara. Students in 1949 were 24,000. The state Church, governed by a Holy Synod, is Eastern Orthodox.

Rumania is predominantly agricultural, with about 80 per cent of the population engaged on the soil. In wheat, rye and other grains, it is one of the richest countries of southeastern Europe. The largest acreage is usually devoted to corn (production 1947: 5,279,000 metric tons) and wheat (1948: 2,600,000 tons). Other crops are flax, hemp, fruit, vegetables, potatoes, sugar beets, sunflower seeds, tobacco and grapes. Stockraising is also important. In 1950 there were 4,950,000 cattle, 2,300,000 hogs and (1948) 7,300,000 sheep. Wool production in 1951 was about 10,000 metric tons.

Agrarian reform measures effected in 1945 provided for the distribution of estates over fifty hectares (123.6 acres) in lots of twelve and one-half hectares to each peasant. Collectivization was not included in the program, but all cattle and implements became the outright property of the State, for lease to farmers. Collectivization was started in 1949, but progress has not been rapid.

Rumania is poorly developed industrially. The chief industries—flour milling, brewing and distilling—are directly connected with agriculture. However, the iron, steel, metal and machinery industries expanded considerably after the initiation of the rearmament program in 1935. In 1947 there were 28,295 industrial establishments which employed 462,305 workers. The most important industries are food processing, textile, metal, chemical, wood and paper. All but the smallest business enterprises have been completely nationalized.

Exports in 1948 totaled 32,175,000,000 lei

and imports 30,016,000,000 lei. Principal exports are ordinarily petroleum products, cereals and cereal products, wood and wood products. Leading imports are iron and manufactures, machinery and motors, vegetable fibers and products. Postwar trade has been carried on almost entirely under bilateral trade pacts, mostly with members of the Soviet bloc.

The Danube, flowing along the southern border for more than 200 miles, is a highly important commercial artery. Transshipment between seagoing vessels and river barges is made at Galati and Braila. The Rumanian Sea and River Navigation Company, with one-fourth of its capital furnished by the U.S.S.R. and three-fourths by Rumania, monopolizes river and sea transport. The principle of freedom of navigation on the Danube for all nations was recognized in the 1947 peace treaty but seems unlikely to be implemented. The principal seaport is Constanta.

Railway mileage in 1949 was 7,363; highway mileage in 1945 was 43,163. The Sovrom Civil Aviation Company, under Soviet management but financed equally by the U.S.S.R. and Rumania, has the monopoly for all civil air transport inside Rumania and to the Black Sea.

The 1951 budget provided for revenue of 433,900,000,000 lei and expenditure of 429,900,000,000 lei.

Postwar inflation was severe, and in Aug., 1947, the leu was stabilized at the rate of one new leu to 20,000 old. Stabilization virtually wiped out the internal debt, which amounted to 79,734,000,000 lei on Mar. 31, 1947. The external debt was 45,226,000,000 lei.

By far the most valuable of Rumania's minerals is oil, produced chiefly in the Ploesti region about 35 miles north of Bucharest. In 1950, production was 44,000,000 barrels.

Natural gas from Transylvania is the second most important mineral, coming to 2,106,000,000 cubic meters in 1947. Other important minerals are iron ore (1950: about 395,000 tons), lignite (1947: 2,108,000 tons), copper, gold and silver. The Russo-Rumanian Oil Company controls all former German oil firms and has a monopoly on new exploitation.

Fisheries on the lower Danube and wood production are also important.

TOPOGRAPHY AND CLIMATE. The Carpathian Mountains divide Rumania's upper half from north to south and connect near the center of the country with the Transylvanian Alps, running east and west. North and west of these ranges lies the Transylvanian plateau, and to the south and east are the plains of Moldavia and Walachia. In its last 190 miles, the Danube River flows through Rumania only.

It enters the Black Sea in northern Dobruja, just south of the border of the Soviet Union.

The Moldavian-Walachian region has hot summers and extreme frosts and blizzards in winter. Variations are less extreme in Transylvania and the Banat. Bucharest's average summer temperature is 72°; winter 27°. In some winters the Danube is ice-bound for as long as three months. Rainfall, heaviest in summer, averages 15-20 inches annually.

El Salvador (Republic) (República de El Salvador)

Area: 13,176 square miles.

Population (est. Dec. 31, 1951): 1,949,608 (mestizo, 78%; Indian, 11%; white, 11%).

Density per square mile: 148.0.

President: Oscar Osorio.

Principal cities (census 1950): San Salvador, 160,380 (capital); Santa Ana, 51,676 (coffee, sugar); San Miguel, 26,831 (coffee, sisal).

Monetary unit: Colón.

Language: Spanish.

Religion: Roman Catholic.

HISTORY AND GOVERNMENT. El Salvador is the smallest, most densely populated of Central American nations, and the only one without an Atlantic coast line.

Pedro de Alvarado, a lieutenant of Cortez, conquered El Salvador in 1525. The area was administered as part of Guatemala until the general Central American revolution against Spain in 1821. El Salvador struck out as an independent republic in 1839 after the dissolution of the Central American Union. Its story since then has been largely one of revolution and strife.

In Jan., 1931, the first free election in 20 years brought in Arturo Araujo as president. He was overthrown before the year was over. General Maximiliano Hernández Martínez, his successor, remained in power until May, 1944, when a general strike forced his resignation. The next regime, also militarist-led, lasted only five months, and was succeeded March 1, 1945, by a regime headed by Salvador Castañeda Castro, who was ousted Dec. 15, 1948, by a revolutionary junta. Major Oscar Osorio, one of the junta's members, was named president in the March, 1950, elections.

The constitution provides for a president, popularly elected for four years and normally ineligible to succeed himself; also, a one-house legislature of 52 members. The military forces include an army limited to 3,000, a militia, a national guard and a small air force.

SOCIAL AND ECONOMIC CONDITIONS. With the second lowest illiteracy rate in Central America, El Salvador provides free and compulsory education; both public and private schools are state-controlled.

Primary schools in 1948 numbered 1,986, with 106,024 students; intermediate schools numbered 53, with 3,562 students. The national university had 900 students.

The majority of the population is mixed white and Indian, but the governing class is composed chiefly of the white group of Spanish colonial origin.

El Salvador probably is the most intensely cultivated of Latin American nations, with more than 80 per cent of its land planted. Coffee, which accounts for 85 per cent of total exports (1951 production: 64,400 metric tons), is controlled in volume by a commission of government officials and planters. Corn, sugar, beans, rice, tobacco, cacao, indigo, millet and sisal fiber are other products. There is some cattle raising and a few local factories, including a monopoly on henequen bags for coffee.

Exports in 1951 totaled \$85,529,736; imports, \$66,583,514 (preliminary). About 75 per cent of the trade is with the U. S.

The two railways have approximately 375 miles of track. All-season highways total 1,436 miles, with an additional 2,300 miles of unimproved roads.

The 1952 budget balanced revenue and expenditure at \$53,000,000. The foreign debt on Dec. 31, 1951, was \$9,538,585; there is no internal debt.

Gold, silver, coal, copper, iron, zinc, mercury and sulfur are the nation's chief minerals. Gold production in 1951 totaled 27,100 ounces; that of silver, 351,800 ounces.

Forest resources, much smaller than in other Central American states, include dyewood, mahogany, cedar and walnut. El Salvador is a leading source of balsam.

TOPOGRAPHY AND CLIMATE. Most of El Salvador is a fertile volcanic plateau about 2,000 feet high. It has several volcanoes, some still active, and many lovely crater lakes. One of these, Lake Ilopango, is a landing place for seaplanes. The mountain ranges along the borders of Guatemala and Honduras give the highlands an almost temperate climate, but the lowlands are often hot and sultry. Temperatures at San Salvador range from about 59° (average daily low) in January to 85° (average daily high) in December; these are the two coolest months. The rainy season lasts from May to October.

San Marino (Republic)

Area: 38 square miles.

Population (1950): 12,780 (mostly Italian).

Density per square mile: 336.3.

Executive: two regents selected every six months by the Grand Council.

Principal town: San Marino (est. pop. 2,000) (capital).

Monetary unit: Lira.

Language: Italian.

Religion: Roman Catholic.

San Marino, the oldest and smallest republic in the world, is one-tenth the size of New York City. It is entirely surrounded by Italy, in the Apennines near Rimini. According to tradition, San Marino was founded about A.D. 350 and had good luck for centuries in staying out of the interminable wars and feuds on the Italian peninsula. The Pope recognized its independence in 1631.

San Marino hires its police and judges from Italy. It no longer confers titles for a consideration, but it does derive much revenue from the exporting of its postage stamps, which are changed often to keep philatelists buying. Other exports are barley, wine and cattle, as well as building stone from Mount Titano.

Executive power is exercised by regents, two of whom are appointed every six months from the popularly-elected Grand Council. There are several primary schools and a high school.

San Marino is linked with Rimini on the Adriatic by a 20-mile electric railway.

Siam. See Thailand

Spain (Nominal Monarchy)

(Espanña)

Area: 194,945 square miles.

Population (census 1950*): 28,286,518 (Spanish, Basque, Catalan).

Density per square mile: 145.1.

Chief of State: Francisco Franco y Bahamonde.

Principal cities (census 1950*): Madrid, 1,609,524 (capital); Barcelona, 1,205,509 (chief port; textiles); Valencia, 509,075 (silk, oranges); Sevilla (Seville), 376,627 (wines, iron ore); Málaga, 261,162 (sea-port); Zaragoza (Saragossa), 261,084 (rail center).

Monetary unit: Peseta.

Languages: Spanish, Basque, Catalan.

Religion: Roman Catholic.

* Preliminary figures.

HISTORY. Spain, twice the size of Oregon, was once one of the world's great powers. From 201 B.C. to A.D. 406, it was part of the Roman Empire. Then the Goths and the Vandals formed a powerful kingdom, which was partially conquered in the 8th century by the Moors from Africa. The last Moorish stronghold, the kingdom of Granada, fell to the forces of King Ferdinand and Queen Isabella, who were trying to unify Spain, in 1492. In the same year, the Spanish-financed explorer Christopher Columbus was discovering the new world for the Spanish crown.

Charles V (1516-55) became King of Spain and also Holy Roman Emperor. Under his son, Philip II, Spain reached the

peak of its power, but the beginning of decline set in with Britain's defeat of the "Invincible" Armada in 1588.

The line of Spanish Hapsburgs ended in 1700, and the War of the Spanish Succession followed. By the Treaty of Utrecht (1713) Spain was forced to accept a Bourbon king, the Duke of Anjou, and lost Gibraltar and all holdings in the Netherlands and southern Italy. Then, while the Spaniards were resisting Napoleon's efforts to establish a Bonaparte line in Spain, most of their colonies in America revolted and became independent. The loss of Cuba, Puerto Rico and the Philippines in the Spanish-American War of 1898 left Spain with only a few scattered possessions in Africa. Neutrality was maintained during World War I.

From 1923 to 1930 Spain was a military dictatorship under General Miguel Primo de Rivera. A wave of republicanism in 1931 forced the abdication of King Alfonso XIII, and a new constitution was drawn declaring Spain to be a workers' republic. Several revolts, strikes and shifts of government kept Spain in political chaos, and on July 18, 1936, the army revolt led by General Francisco Franco burst into civil war. While Hitler and Mussolini helped Franco, Russia helped the Loyalist side. The last Loyalist forces surrendered on March 29, 1939. Spain became a dictatorship under Franco and signed the anti-Comintern pact in 1939.

While Franco shied away from the risk of becoming a belligerent in World War II, he was pro-Axis in sympathy, helped the Axis with supplies, intelligence and services to German U-boats, and even sent the Spanish Blue Division to fight Russia.

Meanwhile, monarchist sympathies remained strong both in and out of Franco's Falange party, and a Spanish Republican "Government-in-exile" was formed in 1945.

In 1951, the United States made a preliminary agreement for wartime use of Spanish naval and air bases in return for U. S. military and economic aid. On July 19, Franco announced a new cabinet with greater monarchist representation.

GOVERNMENT. Franco is head of the state, national chief of the Falange party, prime minister and *caudillo* (leader) of the empire. Practically, the country is ruled by the cabinet (appointed by Franco), the National Council of the Falange party and, to a lesser extent, the Cortés (parliament). The principal function of the Cortés is the planning and formulation of laws without prejudice to Franco's veto power. Cabinet ministers, party officials, civil governors, university heads, and the presidents of learned bodies become members of the Cortés ex-officio. There is no provision for the introduction of legislation by any of the members.

In a referendum held July 6, 1947, the Spanish people approved a Franco-drafted succession law declaring Spain a monarchy again. Franco, however, is to continue as chief of state and upon his death or incapacity the Government and a Council of the Realm constituted by the law are to nominate as king "that person of royal blood who is most qualified by right," subject to the approval of the Cortés. The law reserves to Franco the right to nominate his own successor, subject also to the Cortés approval by two-thirds vote.

DEFENSE. Franco is commander in chief of the army, navy and air force, each administered by a cabinet minister responsible to him. Military service is compulsory for a period of two years. The standing army, estimated at 450,000 men, is divided into 22 divisions in Spain and four in Morocco. The navy in 1952 had 6 cruisers, 18 destroyers, 6 submarines, 12 frigates and escort vessels and many smaller vessels. Several destroyers and smaller vessels were under construction. The budgetary allotment for defense is about 40 per cent.

EDUCATION, RELIGION AND SOCIAL POLICIES. The illiteracy rate was 20.8 per cent in 1947. Primary education is compulsory and free; religious instruction is permitted. In 1948 there were 55,111 public primary schools with 2,063,646 pupils, 119 secondary schools with 213,818 students, 53 normal schools (1949) with 24,171 students, and 12 universities with 41,844 students.

Roman Catholicism is the established religion. After the civil war of 1936-39, the church was restored to substantially its pre-republican position; confiscated property was returned, religious education was reintroduced, and divorce was banned.

The labor charter promulgated March 9, 1938, defined Spain as a totalitarian and syndicalist state. So-called vertical syndicates have supplanted all union organizations and all other organizations for the protection of the economic interests of productive groups. A branch of production extends "vertically" from the raw material stage through the industries and firms engaged in processing and marketing. Prices, wages and production, and the distribution of merchandise are controlled.

AGRICULTURE. Spain is predominantly agricultural, although there are extensive non-arable areas. The principal land uses, apart from forest, pasture and forage crops, are the production of grain, potatoes, pulse, sugar beets, oranges, grapes and olives. Since the civil war Spain has not recovered balance in production and consumption of foodstuffs. Normally, Spain produces exportable quantities of oranges, lemons, almonds, filberts, raisins and other subtropical commodities. Wine production in 1951 was about 475,500,000 U. S. gallons; olive oil, 600,000 metric tons.

PRINCIPAL CROPS

(thousands of metric tons)

	1949	1950	1951*
Wheat	3,035	3,380	4,800
Barley	1,635	1,500	1,800
Rye	489	560	570
Oats	500	500	580
Maize	540	610	675

* Provisional.

Livestock, also important, included in 1948, 4,000,000 cattle, 23,000,000 sheep (1951), 4,222,000 goats and 2,670,000 hogs. Wool production in 1950 was 39,000 metric tons.

TRADE. Statistics of foreign trade are as follows, in millions of U. S. dollars:

	1949	1950	1951
Exports	380	389	462
Imports	454	390	384

In 1950 the chief customers were the Spanish colonies (24%), the U. S. (15%) and Britain (14%). Leading suppliers were the Spanish colonies (24%), the U. S. (13%) and France (8%). Leading exports were oranges (12%), cotton goods (9%), tomatoes (5%), iron ore and iron pyrites (4%). Main imports were raw cotton, chemical products (especially fertilizer), wheat, petroleum and tobacco.

INDUSTRY. The textile industry, concentrated in Catalonia and normally employing over 300,000 workers, leads all others. The paper and chemical industries are also important. Pig-iron production in 1951 was 650,200 metric tons; steel production, 818,200 tons. On Mar. 31, 1952, 64 vessels of 80,170 gross tons were under construction. **COMMUNICATIONS.** The merchant fleet, which suffered severely during the civil war and World War II, comprised 1,153 vessels (100 tons and over) of 1,215,974 gross tons on June 30, 1951, according to *Lloyd's Register*. The highway system is about 80,000 miles. In 1950, there were 11,068 miles of railway.

FINANCE. Recent data (budget estimates) are as follows, in millions of pesetas:

	1949*	1950-51†	1952-53†
Revenue	16,071	17,847	22,208
Expenditure	16,629	17,941	22,477

* Actual. † Data are for each year in indicated biennial budgetary period.

The public debt in Sept. 1951 was 58,195,000,000 pesetas. Deficit financing, the enormous cost of reconstruction and World War II have contributed to persistent inflationary tendencies. The note issue of the Bank of Spain, amounting to 9,300,000,000 pesetas in July 1940 was up to 35,600,000,000 pesetas by March 1952.

MINERALS. Spain's mineral wealth, second to agriculture in the national economy, yields millions of tons of ore. In 1946 the mining and metallurgical industries employed 250,115 workers; output was valued at 8,422,251,768 pesetas. Following

are production figures for 1951, in metric tons: coal and lignite, 12,816,000; iron ore, 2,320,000; lead ore, 77,800; zinc ore, 128,500; potash ore, 1,084,600; mercury (1950), 1,786. Spain is also a producer of copper, gold, magnesite, sulfur, tungsten, phosphates, silver and, reportedly, uranium.

FORESTS AND FISHERIES. Spanish forests yield lumber, pine resins, cork and esparto. Some 100,000 persons work in the fishing, canning and related industries. The 1949 catch, principally cod, tunny and sardines, was 550,953 metric tons, valued at 2,309,993,000 pesetas.

TOPOGRAPHY. Spain, less than ten miles from Africa at the closest point, and separated from France by the Pyrenees, is generally a broad plateau sloping to south and east and crossed by a series of mountain ranges and river valleys. Most of the coast line is steep and rocky, with few indentations. The best harbors are on the Galician coast in the north; the broadest coastal plain is on the Gulf of Cádiz in the southwest. The Guadalquivir River in the south is navigable to Sevilla, but most of the others are mountain streams useful only for waterpower. Hydroelectric stations account for 75 per cent of Spain's generating capacity.

CLIMATE. Most of Spain's weather is extreme. Madrid, for example, reaches a high of 110° and a low of 10°. In the southeast, the protection of the Sierra Nevada makes the climate subtropical. The northeast, with climate much like that of the British Isles, is the only region with normal rainfall. In the east and southeast, irrigation is requisite to farming.

OUTLYING ISLANDS. Off Spain's east coast in the Mediterranean are the Balearic Islands, which total 1,936 square miles. The largest is Majorca (1,405 sq. mi.). Sixty miles west of Africa in the Atlantic are the Canary Islands (2,804 sq. mi.).

SPANISH COLONIAL POSSESSIONS

Country	Area, sq. mi.	Population, est. 1950
Ceuta, Melilla, Alhucemas, Chafarinas, and Peñon de Velez	82	163,000
Spanish Morocco	7,589	1,192,000
Spanish Guinea	16,900	175,000
Western Sahara, including Infi and Spanish Sahara	116,200	80,000

SPANISH MOROCCO. See MOROCCO

Sweden (Kingdom)

(Sverige)

Area: 173,341 square miles.

Population (est. Dec. 31, 1951): 7,099,204 (practically all Swedish).

Density per square mile: 40.9.

Sovereign: King Gustavus VI.
Prime Minister: Tage Fritiof Erlander.
Principal cities (est. Dec. 31, 1951): Stockholm, 752,193 (capital); Göteborg, 358,194 (chief port; shipbuilding); Malmö, 196,490 (seaport); Norrköping, 87,141 (textiles); Helsingborg, 71,993 (Baltic seaport).
Monetary unit: Krona.
Language: Swedish.
Religions: Swedish Lutheran, 99%; others, 1%.

HISTORY. Although ancestors of today's Swedes lived in the area as long as 5,000 years ago, little is known of Sweden before the 10th century. Before 1100, King Olaf Skötkonung had united Sweden into a strong nation and established Christianity. In 1397 Sweden was united with Norway and Denmark under the Union of Kalmar. After the murder of several prominent Swedes by Christian II of Denmark in 1520, Sweden revolted under the leadership of Gustavus Vasa. Gustavus, elected king in 1523, founded the modern Swedish state and was the first European monarch to break relations with the Pope.

By the Treaty of Westphalia (1648) which concluded the Thirty Years' War (during which Gustavus Adolphus scored a number of brilliant military successes), Sweden acquired important German areas, including large portions of Pomerania. In 1700, Poland, Denmark and Russia united against Sweden. When peace was finally concluded in 1721, Sweden gave up Livonia, Estonia, Ingria and parts of Finland. Sweden participated in the coalition against Napoleon (1805-07) but in 1809 Finland was lost to Russia. Following the ouster of King Gustavus IV in 1809, a constitutional law still in effect was adopted, after which Charles XIII, uncle of Gustavus IV, was elected king. Since Charles XIII was childless, one of Napoleon's marshals, Jean Bernadotte, was elected Crown Prince and took over effective control of the government, succeeding to the throne in 1818 as Charles XIV. By the Treaty of Kiel (1814), Sweden acquired Norway from Denmark in return for Pomerania. The union with Norway lasted until 1905, when it was peacefully dissolved.

Neutrality was maintained through both World Wars. In 1936 Per Albin Hansson formed a Social Democratic ministry which gave way on Dec. 12, 1939, to a national coalition cabinet under his leadership. On July 31, 1945, another wholly Social Democratic cabinet was formed by Hansson, who died in 1946 and was succeeded as prime minister by Tage Fritiof Erlander.

Refusing still to abandon its traditional neutrality, Sweden did not join the North Atlantic Pact in 1949. Anti-Soviet feeling grew intense in June 1952, however, when Russians shot down a Swedish plane over the Baltic.

SOVEREIGN. Gustavus VI, born Nov. 11,

1882, married (1) 1905, Princess Margaret Victoria (born 1882, died 1920); (2) 1923, Princess Louise Mountbatten (born 1889). To his first marriage was born Prince Gustavus Adolphus (born Apr. 22, 1906, killed in air crash Jan. 26, 1947), who was married in 1932 to Sibylle, Princess of Saxe-Coburg-Gotha; their offspring include a son, Carl Gustavus, the heir apparent, born April 30, 1946, and four daughters. Gustavus VI became king Oct. 30, 1950, on the death of his father, Gustavus V, who had reigned since 1907.

GOVERNMENT. Sweden is a limited monarchy. Executive and judicial authority is vested in the king alone, but his resolutions must be taken in the presence of the Council of State (cabinet), headed by the prime minister; the Council is appointed by the king but is responsible collectively to the Riksdag (parliament).

The Riksdag has an upper chamber of 150 members elected indirectly by the provincial and municipal councils for eight years, one-eighth being renewed each year. The lower chamber of 230 members is directly elected by popular vote for four years. There is universal suffrage for men and women over 21. The king has the right to initiate legislation and has an absolute veto over all bills except those relating to taxation.

Standings in the lower chamber (elections of Sept. 19, 1948): Social Democrat 112, Conservative 23, Agrarian 30, Liberal 57, Communist 8.

DEFENSE. Military service is compulsory from the ages of 20 to 47; the initial training period is 15 months. The king is commander in chief of all the armed forces. The army, numbering about 60,000, with a trained reserve of 600,000, is well-equipped with the latest type weapons, many of them developed in Sweden. The air force has 600 planes. The navy on Jan. 1, 1952, had 4 cruisers, 3 coast defense ships, 13 fleet destroyers, 8 escort vessels, 24 submarines, 2 minelayers and numerous smaller craft. Naval personnel numbers about 10,000 in addition to coast artillery, under naval jurisdiction.

EDUCATION. Public elementary education has been free and compulsory since 1842. In 1949 there were 589,775 pupils in regular elementary schools as well as 124,622 pupils in regular secondary schools. The two universities—Uppsala and Lund—and three other schools of university grade had a total enrollment of 9,742 in 1949. The state also provides a large number of special vocational and continuation schools. The national church is the Swedish Lutheran Church, of which the king is supreme administrator.

SOCIAL WELFARE. The extremely well-developed co-operative movement is a powerful factor in the country's economic life.

The co-operatives account for about 10 per cent of the total retail trade and more than 20 per cent of the grocery business. Social legislation, also well-advanced, includes unemployment relief, loans and grants for housing, medical care, care of the indigent and the aged, and a public works program to curtail unemployment.

AGRICULTURE. Grain, hay, potatoes and sugar beets are products of the broad fertile plains of the south; cattle raising and dairy farming predominate in the north. Production of major crops in 1951 was as follows, in metric tons: wheat, 477,000; rye, 175,000; corn, 248,000; oats, 828,000; mixed grains, 693,000; sugar beets, 1,732,000; potatoes, 1,756,000. The 1951 livestock census showed 414,600 horses, 2,633,500 cattle, 260,700 sheep and 1,324,000 hogs. Butter production in 1951 was 106,300 metric tons; cheese, 54,400 tons; milk, 4,774,000 tons.

INDUSTRY. Industrial establishments in 1948 numbered 17,490 with 806,000 workers. The highly specialized machine industry produces separators, motors, electrical machines and apparatus, agricultural machinery, ball bearings, telephone equipment and harbor works. Pig iron production in 1951 totaled 851,000 metric tons; raw steel, 1,504,000 tons.

There are also large woolen, glass and porcelain industries. Shipyards build for both Swedish and foreign fleets; 54 vessels of 308,616 gross tons were under construction on March 31, 1952. The timber and woodworking industries are extensive. The match industry is a single trust which covers the whole world and, with the help of British and American capital, monopolizes production in many countries.

TRADE. Statistics of foreign trade are as follows, in billions of kronor:

	1949	1950	1951
Exports	4.25	5.71	9.17
Imports	4.34	6.12	9.20

Leading exports in 1951 were wood pulp (28%), machinery and vehicles (16%), paper and manufactures (14%) and wood and manufactures (12%). Leading customers were Britain (19%), Germany (11%), France and Norway (each 6%) and the U. S. and the Netherlands (each 5%). The chief suppliers were Britain (16%), Germany (14%), the U. S. (9%) and Belgium (6%).

COMMUNICATIONS. On June 30, 1951, the merchant marine comprised 1,247 ships (100 tons and over) of 2,113,169 gross tons, largely efficient motor vessels. The highly developed railway network totaled 10,260 miles in 1951, and there were about 58,200 miles of highway, mostly improved. By means of ferry steamers, Swedish state railways are connected directly with both Germany and Denmark. Telephones in 1951

numbered 1,878,500 (239 per 1,000 persons), making the telephone system second only to the United States on a per capita basis. Airlines flew approximately 140,000,000 passenger-miles in 1950.

FINANCE. The ordinary budget (1951-52) provided for revenue of 5,708,000,000 kr. and expenditure of 5,367,000,000 kr.; the surplus was to be used for capital expenditure. The public debt was 12,823,000,000 kr. on Dec. 31, 1951. The Riksbank (National Bank of Sweden), belonging entirely to the state, is the sole bank of issue.

MINERALS. Sweden's high-grade iron ore deposits are among the world's richest. Those in central Sweden produce principally for domestic use, while the ones in Lapland to the north are worked largely for export, with much of the output being shipped through the Norwegian port of Narvik. Production in 1951: 15,391,000 metric tons. Gold production: 71,000 troy oz. Other major minerals are copper (27,620 tons), lead (9,485 tons), arsenic ore (66,000 tons), manganese ore (17,544 tons), pyrite ore (407,000 tons), zinc ore (66,000 tons) and silver (611,000 oz.). Coal production (500,000 tons a year) is comparatively small; imports of nearly 8,000,000 tons a year are therefore necessary. Deposits of uranium have been reported.

Wood and peat are extensively used as fuel. Sweden's many waterfalls have a potential of 13,000,000 kw., of which 2,800,000, or 21%, had been developed by the end of 1948. The largest hydroelectric works are state-owned.

FORESTS AND FISHERIES. About 60 per cent of Sweden is forested, mostly in pine, and there are vast forest products industries in the north. Sweden supplies a large percentage of the world's mechanical and chemical pulp. In 1950, 3,146,000 metric tons of wood pulp, 635,000 tons of paper, 191,000 tons of cardboard and 354,000 tons of newsprint were produced.

The average annual catch of fish is about 140,000 tons, half of it in small Baltic herring. Cod, mackerel and sprat also are taken in the Baltic, and the inland lakes and rivers are well stocked with salmon, trout and perch. The catch in 1951 (sea fisheries) was 175,000 metric tons, valued at 113,000,000 kr.

TOPOGRAPHY. Sweden, with extreme length of about 990 miles and breadth of 260 miles, slopes eastward and southward from its peak elevation in the Kjölen mountains along the Norwegian border. In the north are mountains and many lakes. To the south and east are central lowlands, and south of them are fertile areas of forest, valley and plain. Along Sweden's rocky coast, chopped up extensively by bays and inlets, are many islands, the largest of which are Gotland (1,220 sq.

mi.) and Oland (519 sq. mi.). The country is landlocked to the north.

CLIMATE. Sweden's climate is diversified. The warmest month is usually July, with a mean temperature of 62° in Stockholm. February is the coldest month, with a mean average below 32° for all Sweden (25.7° at Stockholm). Average annual rainfall in the north is 16.5 inches; in the south, 22.5 inches.

Switzerland (Republic)

(Schweiz-Suisse-Svizzera)

Area: 15,940 square miles.

Population (est. Dec. 1951): 4,780,000 (Swiss, 91.2%; German, 3.6%; Italian, 3.1%; French, .9%; others, 1.2%—figures by place of birth).

Density per square mile: 299.9.

President (1952): Karl Kobelt.*

Principal cities (census 1950): Zürich, 390,020 (textiles, banking); Basel, 183,543 (rail center, Rhine port); Bern, 146,499 (capital); Geneva, 145,473 (Intellectual center).

Monetary unit: Swiss franc.

Languages: German, 71.9%; French, 20.4%; Italian, 6.0%; Romansch, 1.1%; others, .6%.

Religions: Protestant, 57%; Roman Catholic, 41%; Jewish, .4%; others, 1.6%.

* The vice president ordinarily becomes president the next year. Vice president in 1952: Philip Etter.

HISTORY. Switzerland, twice the size of New Jersey, is a tourist mecca, but its rugged scenery is more than a commercial asset. Europe's aggressors for centuries, right up through World War II, have usually left Switzerland in peace, largely because of its formidable natural barriers.

Swiss history is principally the story of the drawing together of various fiefs of the Holy Roman Empire into a single union for common defense. The process began in 1291, with the cantons of Uri, Schwyz and Nidwalden as the nucleus. Over the next 300 years, ten new cantons entered the federation, which nominally remained part of the Holy Roman Empire until the Treaty of Westphalia gave it independence in 1648.

The French revolutionary army succeeded in occupying Switzerland in 1798 and organized it as the Helvetic Republic, but Napoleon restored the federation in 1803. The Congress of Vienna (1815) declared Switzerland an independent, neutral state in perpetuity, and fixed the nation's borders as they exist today. Out of the brief Swiss civil war of 1847 came the democratic constitution of 1848, which was influenced by the U. S. constitution.

Switzerland maintained strict neutrality in World Wars I and II, during which its diplomatic delegations represented the interests of many of the belligerents. Both sides bombed several Swiss cities by mistake in World War II. Switzerland was a

center of both Axis and Allied espionage and counter-espionage during the war.

GOVERNMENT AND DEFENSE. Since the adoption in 1874 of their present constitution, the Swiss have had a federation of 22 sovereign cantons. Each canton has its own legislature, executive and judiciary departments, with the right of veto over federal legislation through referendum.

The Federal Assembly has two houses—a Council of States of 44 members, two from each canton, and a National Council of 196 members elected for four-year terms. The seven members of the cabinet (Federal Council) are elected for four years by the Federal Assembly, which also elects the Swiss president from among its own members for a period of one year. The federal government is supreme in matters of war, peace and treaties, and regulates the army, railroads, postal service, mints and national bank note issues.

In peacetime, the highest Swiss army officer is a colonel. In wartime a commander in chief is named with rank of general. Since the army is a national militia, it maintains no standing forces, but military service is compulsory from the ages of 18 to 60, with an initial training period of about three months and an 11-day refresher course once a year. The force of men trained and physically fit is about 650,000. The air force has about 5,000 personnel and 400 planes.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is compulsory, free and locally controlled. In 1948-49, primary schools had 434,498 pupils and secondary schools had 78,587. There are seven universities, with 14,903 students in 1949-50.

Religious freedom is guaranteed under the constitution. German, Italian and French were recognized as national languages in 1874, and Romansch, a dialect of the Alpine regions, was also made official in 1937.

With nearly a fourth of its land unproductive, and with half of it in pasture or forest area, Switzerland is dependent on imports for food supply. Wheat, potatoes, fruits, oats, barley, rye, sugar beets and grapes are grown, but stockraising and dairy farming account for three-fourths of the agricultural production. In 1951 there were 1,807,000 cattle, 191,000 sheep, 892,000 hogs and (1950) 180,000 goats.

Production of cheese in 1951 was 24,000 metric tons, and that of butter, 46,800 metric tons. Approximately 20 per cent of the population is engaged in agriculture. Total value of agricultural production in 1949 was 2,195,500,000 fr.

Manufacturing is the principal economic activity, with more than 40 per cent of the population being sustained by manufactures or mechanical pursuits. Industry is conducted largely in small plants using

highly skilled workers. Almost all the raw materials are imported, and products consist almost exclusively of high grade, expensive commodities. In 1950 there were 11,568 factories, with 492,563 workers.

Manufactures include chemical products, machines, watches, textiles, aluminum, precision instruments, lumber, shoes and fine handmade embroidery. Chief agricultural industries are the manufacture of fine cheeses and condensed milk. With its many scenic attractions, Switzerland draws the heaviest and most profitable tourist trade in Europe.

Switzerland is dependent on foreign trade for its prosperity. Trade statistics are as follows, in millions of Swiss francs:

	1949	1950	1951
Exports	3,457	3,911	4,691
Imports	3,791	4,536	5,916

In 1951, the leading customers were the U. S. (13%), France (9%), Germany (9%), Italy (7%) and Belgium (6%). Leading suppliers were the U. S. (16%), Germany (15%), France (10%) and Italy, Britain and Belgium (each 7%).

The leading exports in 1951 were clocks and watches (22%), machinery (21%), chemicals (16%) and textiles, including apparel (15%).

The Rhine, navigable from Basel to the North Sea, is the principal inland waterway. Railways built over rugged terrain, entailing construction of many bridges and tunnels, total about 3,350 miles, mostly electrified. The railroads are of great strategic importance in communications between Germany and Italy. Road mileage totals about 10,500. State aerial service is gradually being developed.

Financial data in millions of Swiss fr.:

	1950	1951	1952*
Revenue	2,035.3	1,812.0	1,860.3
Expenditure	1,739.7	1,889.2	2,073.0

* Budget estimate.

The debt of the Confederation alone (excluding the railway debt) was 7,806,300,000 fr. on Dec. 31, 1951.

Minerals include small amounts of iron ore, gold and coal. Nearly 25 per cent of the country is covered by forest.

TOPOGRAPHY AND CLIMATE. Most of Switzerland is an irregular, mountainous plateau bordered by the great bulk of the Alps on the south and by the Jura Mountains on the northwest. Its greatest length is 226 miles, greatest width, 137 miles. A fourth of its total area is covered by scenic mountains and glaciers. The highest peaks are Monte Rosa (15,217 ft.) and Matterhorn (14,780 ft.), both on the Italian border, and the Jungfrau (13,667 ft.), southeast of Interlaken. The sources of the Rhine, Rhône and Aar are in Switzerland. The country's largest lakes, Geneva, Constance (Boden See) and Maggiore, straddle

the French, German-Austrian and Italian borders, respectively. Neuchâtel, 92 square miles, is the largest wholly Swiss lake.

The climate is temperate and varies greatly with altitude. The coldest month (January), for example, averages 31.8° at Basel, which is 909 feet in elevation, and 16.2° at Säntis, with altitude of 8,202 feet. July is the warmest month, with a mean of 66.4° in Basel and 41° at Säntis.

Syria (Republic)

Area: 73,587 square miles.

Population (est. 1951): 3,329,137 (Arab, Armenian, Kurdish, Turkish, French).

Density per square mile: 45.2.

Chief of State: Gen. Fawzi Selo.

Principal cities (est. 1950): Aleppo (Alep), 356,000 (northern trading center); Damascus (Damas), 325,000 (capital); Homs, 100,000 (farming, silk); Hama, 85,000 (Bedouin trading center).

Monetary unit: Syrian pound (£S).

Languages: Arabic, Aramaic, French.

Religions: Moslem (Sunni), 69.8%; Moslem (Alawite), 11.0%; Greek Orthodox, 4.6%; Armenian Orthodox, 3.5%; Moslem (Druze), 3.1%; others (Syrian Orthodox and Catholic, Greek and Armenian Catholic, Israelite, etc.), 8.0%.

HISTORY. Ancient Syria was conquered by Egypt about 1500 B.C., and after that by Hebrews, Phoenicians, Assyrians, Chaldeans, Persians and Greeks. From 64 B.C. until the Arab conquest in A.D. 636, it was part of the Roman Empire except during brief periods. The Arabs made it a trade center for their whole empire, but it suffered severely from the Mongol invasion in 1260 and fell to the Ottoman Turks in 1516. Syria remained a Turkish province until World War I.

A secret Anglo-French pact of 1916 put Syria in the French zone of influence. The League of Nations gave France a mandate over Syria after World War I, but the French were forced to put down several nationalist uprisings. In 1930, France recognized Syria as an independent republic, but still subject to the mandate. After nationalist demonstrations in 1939, the French high commissioner suspended the Syrian constitution. In 1941 British and Free French forces invaded Syria to eliminate Vichy control. During the rest of World War II, Syria was an Allied base. Again in 1945, nationalist demonstrations broke into actual fighting, and British troops had to restore order. Syrian forces met a series of reverses while participating in the Arab invasion of Palestine in 1948. After Mar. 30, 1949, when the government was overthrown by Husni Zayim, there were several Army *coups d'état*. That of Nov. 29, 1951, was engineered by Col. Adib el Shishakly. On Dec. 3, 1951, the higher military council headed by Shishakly named Col. Fawzi Selo Chief of State, Prime Minister and Defense Minister.

GOVERNMENT AND DEFENSE. The 1950 constitution substantially increased the power of the unicameral legislature, which is popularly elected for four years. It stipulated that the president, who is elected by the legislature for a five-year term, must be a Moslem. Executive power is exercised by the premier and cabinet. Latakia in the northwest and Jebel Druze in the south are part of Syria but have considerable autonomy. The Syrian army is organized around a cadre of *troupes spéciales* transferred from French to Syrian jurisdiction in Aug., 1945.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is compulsory. In 1951 Syria had 1,759 primary schools with an enrollment of 260,759, and 138 secondary schools with 28,595 pupils. There is a university at Damascus. Mutually distrustful religious sects are a serious weakness.

Agriculture and animal breeding are the main industries. Only half the land is arable, and only a third is actually cultivated. Most crops require irrigation. In 1950 Syria grew 830,000 metric tons of wheat and 322,000 tons of barley. Other leading crops include sorghum, olives, cotton, grapes, lentils and tobacco. Stock-raising is important among nomads and semi-nomads.

Exports in 1951 totaled £S305,090,000; imports were £S277,134,000. Chief exports were ginned cotton (38%), wool (13%), sheep (4%), cottonseed (2%) and tobacco (2%). Principal customers were Lebanon (20%), France (16%) and the U. S. (12%); chief suppliers, the U. S. (20%), Britain (14%) and France (11%).

In 1950 Syria had 3,021 miles of highway and (1949) 539 miles of railway.

The 1950 budget balanced at £S142,800,000; that for the first six months of 1951, at £S67,750,000; and that for the new fiscal year beginning July 1, 1951, at £S197,000,000. The public debt on Dec. 31, 1950, was £S9,810,940.

TOPOGRAPHY AND CLIMATE. Coastal Syria is a narrow plain. Back of that is a range of coastal mountains, and still farther inland is a steppe area. In the east is the Syrian Desert, and in the southeast next to Jordan is the Jebel Druze Range. The climate is subtropical, with rainfall averaging 50 inches on the coastal range but diminishing to less than four inches in parts of the desert. Summer temperatures at Aleppo range from about 75° at night to 100° during the day; winter temperatures, from freezing to 50°.

Malayan, 3.4%; others, 3.2%).

Density per square mile: 95.0.

Ruler: King Rama IX.

Prime Minister: Luang Pibul Songgram.

Principal cities (census 1947): Bangkok (Krung Thep), 827,290 (capital, chief port); Khonkaen, 590,664 (trading center); Chiang Mai, 534,623 (rice, teak); Chiang Rai, 476,118 (northern trading center).

Monetary unit: Baht.

Languages: Thai (Siamese), Chinese.

Religions (census 1947): Buddhist, 89%; Moslem, 4%; Christian and others, 7%.

* Including about 2,500,000 of Chinese descent born in Siam.

HISTORY. The Siamese first began moving down into their present homeland from the Asiatic continent in the 6th century A.D., and by the end of the 13th century ruled most of the western portion. During the next 400 years the Siamese fought sporadically with the Cambodians to the east and the Burmese to the west. The British obtained recognition of paramount interest in Siam in 1824, and in 1896 an Anglo-French accord guaranteed Siamese independence. In 1909 Siam renounced claims to suzerainty over four Malayan states in return for almost complete cessation of British interference in Siamese internal affairs. Siam declared war on the Central Powers in 1917.

A coup on June 24, 1932, changed the absolute monarchy into a representative government with universal suffrage. Thus shorn of much power, King Prājadhipok abdicated in March, 1935, in favor of his nephew, Prince Ananda Mahidol. After five hours of token resistance on Dec. 8, 1941, Siam yielded to Japanese occupation and became one of the springboards in World War II for the Japanese campaign against Malaya. After the fall of its pro-Japanese puppet government in July, 1944, Siam pursued a policy of passive resistance against the Japanese, and on Aug. 16, 1945, after the Japanese surrender, Siam repudiated the declarations of war it had made against Britain and the U. S. in 1942.

By a treaty signed with Britain and India Jan. 1, 1946, Siam renounced all wartime acquisitions of Malayan territory and agreed that no canal linking the Gulf of Siam with the Indian Ocean would be cut across Siamese territory without British concurrence. A Franco-Siamese agreement of Nov. 17, 1946, provided for the return to Indo-China of a border area ceded to Siam by Vichy France in 1941.

Luang Pibul Songgram, prime minister during the Japanese occupation, seized power in a bloodless coup on Nov. 9, 1947, and although his party was defeated in elections for the Constituent Assembly on Jan. 29, 1948, he retained power and was designated Prime Minister on Apr. 15, 1948. He remained in the post despite two *coups d'état* in 1951.

On May 11, 1949, the name Thailand,

Thailand (Siam) (Kingdom)

(Muang Thai)

Area: 198,247 square miles.

Population (est. 1951): 18,836,000 (1937: Thai, 90%*; Chinese, 3.4%; Indian and

under which the country was known during World War II, was readopted in place of Siam. King Rama IX, who was born Dec. 5, 1927, second son of Prince Mahidol of Songkhla, succeeded to the Siamese throne on June 9, 1946, when his brother, King Ananda Mahidol, died of a gunshot wound.

GOVERNMENT AND DEFENSE. Thailand is a constitutional hereditary monarchy. Under the 1932 constitution, restored after the Dec. 1951 *coup d'état* to replace that of 1949, there is a unicameral Parliament, half nominated, half elected. The government is administered by the Prime Minister and his Cabinet, who are responsible to the Parliament.

The 1937 defense act made military service compulsory for a period of two years between the ages of 18 and 30. The army had about 80,000 men in 1951. There was also a militarized police force of about 40,000 men and a fair-sized air force. The navy had 3 coast-defense ships, 4 submarines, 4 frigates and escort vessels and other smaller craft. An infantry battalion, 2 naval vessels and several planes were sent to Korea.

SOCIAL AND ECONOMIC CONDITIONS. Buddhist monasteries throughout Thailand control most of the elementary education in rural districts. In 1948 there were 440 government schools, with 68,581 pupils, 18,670 local public and municipal schools, with 2,081,414 pupils, and 1,501 private schools, with 167,629 pupils. The 5 institutions of higher learning had 10,494 students.

Almost 90 per cent of the population work at agriculture. Rice (1951: 6,580,000 metric tons) is the principal crop, the staple food and the leading export. It is the basis of Thailand's whole economy and the key to its prosperity. Next most important is rubber (exports 1951: 119,784 metric tons). Other products include coconuts, corn, tobacco, cotton, sesame, sugar cane and soybeans. Livestock, poor in quality and quantity, is used mainly for hauling. Manufacturing is of little importance, except for native handicraft and food processing. Domestic business is largely controlled by Chinese.

Recent trade statistics are as follows (in millions of baht):

	1949	1950	1951
Exports	2,777	3,576	4,473
Imports	2,280	2,881	3,714

Chief exports in 1950 were rice (49%), rubber (20%), tin (8%) and teak (4%). Leading customers in 1949 were Singapore (19%), the U. S. (15%) and India (13%); chief suppliers, Hong Kong (17%), the U. S. (16%) and Singapore (13%).

There are good water routes which handle about 80 per cent of all internal traffic. Bangkok, the chief port, 25 miles up the

ChauPAYA River from the Gulf of Siam, handles about 80 per cent of the foreign trade. Railways under government ownership total 2,032 miles, and in 1950 there were about 3,600 miles of highway. With a number of international airlines using its facilities, Bangkok is rapidly becoming the hub of commercial aviation in south-east Asia.

The 1951 budget estimated ordinary expenditure at 1,178,468,662 baht, extraordinary expenditure at 1,320,737,512 baht, capital expenditure at 998,150,932 baht, and all revenue at 2,500,000,000 baht. The public debt on Feb. 29, 1952, included internal loans of 390,607,000 baht, an external loan of £1,402,000, U. S. dollar credits of \$4,803,000 and International Bank loans of \$5,020,000.

There are small deposits of many important minerals, and some precious stones. Only tin, gold, tungsten and salt are in commercial production. Tin output in 1940 was 20,841 tons (10% of the world total), but production was only 9,461 long tons (tin-in-concentrates) in 1951.

Almost 70 per cent of Thailand's total land area is forested. Teak, the main forest product, covers over one-third of this area, chiefly in the northern hill country. Production in 1948 was about 65,000 tons. Other forest products are thengnan wood, ironwood, ebony, rattan and sticklac.

Fisheries, both ocean and river, ordinarily rank second to agriculture in product value. The average catch of 40,000 tons includes mainly mackerel, as well as anchovies, mollusks and shellfish.

TOPOGRAPHY AND CLIMATE. Thailand, about three-fourths the size of Texas, supports most of its population in the central alluvial plain which is drained by the ChauPAYA River and tributaries. The climate is monsoonal, but the full force of the monsoons is broken by the western frontier hills. Rainfall decreases from south to north. Humidity is always high, but temperatures fall as low as 40° in the November-February cool season. Inland temperatures often rise to 100° during the hot season.

Trans-Jordan. See Jordan

Trieste

(Free Territory under U. N. protection)

Area: 293 square miles.

Population (est. 1951): 378,000 (Italian, 85%; Slovene and Croat, 10%; others, 5%).

Density per square mile: 1,290.1.

Principal city (census 1936): Trieste, 237,717.

Monetary unit: Lira, Yugoslav dinar.

Religion: Predominantly Roman Catholic.

Languages: Italian and Slovene (official), Croat.

Focal point of Big Power dispute during the 1946 treaty negotiations, the tiny Free Territory of Trieste on the northeastern Adriatic took existence on Sept. 15, 1947. Soviet Russia had backed Yugoslav claims for the whole Istrian peninsula, including the port of Trieste, an ideal sea outlet for Soviet-dominated Danubia. The U. S. and Britain opposed these claims. A French compromise was adopted which gave Yugoslavia the predominantly Italian cities of western Istria, including the Pola naval base; from the other predominantly Italian parts, consisting of the city and surrounding territory of Trieste, the Free Territory was formed under U. N. protection.

The territory formed part of Austria (Trieste from 1382) before World War I, and Trieste became the strategic port of central Europe and outlet for the trade of the Danube basin. By the treaty of Rapallo (Nov. 12, 1920) between Italy and Yugoslavia, the territory along with all of Istria went to Italy as part of "Italia Irredenta." After the German collapse early in May, 1945, Tito's Yugoslav forces occupied the territory, determined to unite it with Yugoslavia. By an agreement of June 9, 1945, most of the area (197 sq. mi.) was put under temporary Yugoslav administration, but a smaller part (96 sq. mi.), including Trieste, was placed under Allied control.

The governor of the Free Territory, who cannot be an Italian or Yugoslav national, is appointed by the United Nations Security Council for a term of five years, after consultation with the Italian and Yugoslav governments. Legislative authority is vested in a popularly elected unicameral Assembly. The Council has not yet reached agreement on the choice of a governor; hence the territory is still administered by Anglo-U. S. and Yugoslav forces within the two zones defined by the peace treaty. The Yugoslav zone has virtually been incorporated into Yugoslavia.

On March 20, 1948, the U. S., Great Britain and France jointly proposed the return of Trieste to Italy. Yugoslavia countered with an offer to yield Trieste if Italy in turn would give up the city of Gorizia, but the Italian government refused.

Turkey (Republic)

(Türkiye Cumhuriyeti)

Area: 296,185 square miles.

Population (census 1950): 20,934,670 (Turkish, 94%; Greek, 2.2%; Bulgarian, 1.4%; Yugoslavian, .9%; others, 1.5%).*

Density per square mile: 70.7.

President: Celâl Bayar.

Premier: Adnan Menderes.

Principal cities (census 1950): Istanbul (formerly Constantinople), 1,018,468 (chief

port, commercial center); Izmir (Smyrna), 362,340 (seaport); Ankara (Angora), 286,781 (capital); Adana, 117,799 (agricultural center); Bursa, 100,007 (silk, carpets); Eskisehir, 88,459 (trading center).

Monetary unit: Turkish pound.

Languages: Turkish, Greek, Bulgarian.

Religions: Mohammedan, 98.6%; others, 1.4%.

* 1935, by place of birth.

HISTORY. Successor to the once great Ottoman Empire, Turkey is a nation of striking contrasts ranging from the multi-racial metropolis of Istanbul to the dreary ranges of Anatolia. It has made marked advances toward modernization and Westernization under the original impetus of the national hero, the late Kemal Atatürk.

The Ottoman Turks first appeared in the early 13th century A.D. Under the leadership of their aggressive sultans, they gradually spread their hegemony over most of the Near East and the Balkans, capturing Constantinople in 1453 and storming the gates of Vienna in the 17th century. At the height of its power, the Empire stretched from the Persian Gulf to the frontiers of Poland and from the shores of the Caspian Sea to Oran in Algeria.

The defeat of the Turkish navy at Lepanto in 1571 by the Holy League and of Turkish forces besieging Vienna in 1683 portended the decline of Ottoman power, reducing Turkey to the status of a pawn in Europe's political maneuvers. Russia moved into the Balkans in the 18th century and made herself official protector of the Balkan Christians. Fear of a Russian drive on Constantinople prompted England and France to declare war on Russia, and the Crimean War (1853-56) followed. As a result of the Russo-Turkish war (1877-78), Bulgaria became practically independent, and Rumania and Serbia threw off their nominal allegiance to the sultan. Further defeats were suffered by Turkey in a war with Italy (1911-12) and in the Balkan Wars (1912-13). Meanwhile, a revolt led by the Young Turks, an organization of youthful liberals, had forced the abdication of Sultan Abdul-Hamid in 1909 and established a constitutional regime.

On Aug. 2, 1914, at the outbreak of World War I, a secret alliance was signed between Germany and Turkey, whose army was advised by a German military mission, and in September the Allies declared war on Turkey. Turkish forces successfully defended the strategic Dardanelles, but British forces seized Palestine, Mesopotamia and Syria; and the Hejaz revolted. By 1918 Allied forces held the territory along the Dardanelles and the Bosphorus, and later Greek forces occupied Smyrna and vicinity.

In 1919 the new Nationalist party, headed by Mustafa Kemal, was organized to resist the Allied occupation, and in 1920 a National Assembly elected Mustafa Ke-

mal president of both the assembly and the government. Under his leadership, the Nationalist government was recognized by foreign powers, the Greeks were driven out of Smyrna, and other Allied forces were withdrawn. The present Turkish boundaries (with the exception of Alexandretta, ceded to Turkey by France in 1939) were fixed by the Treaty of Lausanne (1923) and later negotiations. The caliphate and sultanate were separated and the sultanate abolished on Oct. 1, 1922. On Oct. 29, 1923, Turkey formally became a republic with Mustafa Kemal, who took the name of Kemal Atatürk, as its first president. He carried out an extensive program of reform, modernization and industrialization.

The Montreux Convention (1936) abrogated a number of provisions of the Treaty of Lausanne relating to the Straits and authorized Turkey to fortify the former demilitarized zone. Turkey was given sole responsibility for the defense of the area. On Aug. 7, 1946, Soviet Russia proposed in a note to Turkey that defense of the Straits be made a joint Turkish-Soviet responsibility under a revision of the Montreux Convention, but the proposal was opposed by both Britain and the U. S., as well as by Turkey.

General Ismet İnönü was elected to succeed Kemal Atatürk on the latter's death in 1938 and was re-elected in 1939, 1943 and 1946, but was defeated in 1950 and succeeded by Celâl Bayar. On Oct. 19, 1939, a mutual assistance pact was concluded with Britain and France. Turkey followed a neutral course during most of World War II, but on Aug. 2, 1944, she broke off relations with Germany, and on Jan. 3, 1945, with Japan. On Feb. 23, 1945, she declared war on Germany and Japan, but took no active part in the conflict. After the abrogation of the Soviet-Turkish non-aggression pact in March, 1945, Turkey was subjected to Soviet pressure for a share in the control of the Dardanelles. To assist Turkey in effecting modernization necessary for the preservation of its national integrity, the U. S. in 1947 agreed to advance \$100,000,000, all of which was to be used for the armed forces or to a lesser extent for economic projects directly related to Turkish defense. Turkey has also received aid under the European Recovery Program.

GOVERNMENT. The constitution, as amended in 1937, defines the Turkish state as "republican, nationalist, populist, étatist, secular, and revolutionary." The president is chosen from the deputies of the National Assembly; his term of office is identical with the life of each Assembly. The 487 members of the Assembly are elected by universal suffrage for a term of four years. According to the constitution, the Assembly exercises the executive power through the president and Council of Min-

isters (cabinet) appointed by him. It may at any time control the actions of the government and at any time dismiss it.

The Republican People's party, which had been in power since 1923, was overwhelmingly defeated in free elections held May 14, 1950, by the Democratic party. The latter won 408 seats in the assembly, People's party 69, National party 1, independents 9. Centralization is the basis of the governmental system. The pre-republic judicial system, based on Sunni Moslem law, was replaced in 1926 by a new system based on the Swiss civil code.

DEFENSE. Military service is compulsory from 20 to 45; the initial training period is three years. The strength of the army, mobilized since 1939, is about 500,000. Large purchases of modern matériel were made during World War II, and additional armaments were received from the U. S. after the war. The air force, under the direct control of the Turkish General Staff, had a strength of about 1,000 planes in 1950. The navy has 1 battle cruiser, 10 fleet destroyers and 11 submarines, in addition to smaller craft, including a number of former U. S. and British minesweepers. A regimental combat team of 5,000 men was dispatched to Korea in 1950.

EDUCATION. Elementary education is nominally obligatory from 7 to 16. In 1949-50 there were 17,029 primary schools with 1,625,499 pupils and 383 secondary schools with an enrollment of 69,226. There were 34 institutions of higher learning with 26,625 students in 1949-50. The Latin alphabet replaced the Arabic script in 1928.

AGRICULTURE AND INDUSTRY. Agriculture is the principal economic activity, engaging about 65 per cent of the population. Only about 20 per cent of the land is under cultivation, but the government has made great efforts to modernize and improve farming. The most important cash crop is tobacco (1950: 87,000 metric tons) with the best quality coming from the Pontic coast near Samsun and also from Bafra, Sinop and Trebizond. Cotton (1951: 155,000 metric tons, ginned) is grown in the south of Asia Minor while figs come exclusively from the Smyrna region. Principal grain crops, with 1951 production in metric tons, are wheat, 5,600,000; barley, 2,700,000; oats, 350,000; and corn, 850,000. Turkey is a leading exporter of olive oil; the Brusa region and the Ionian coast are the principal areas of cultivation. Opium poppies are grown in the Smyrna, Malatia and Tokat regions.

Turkey is rich in livestock. The most important animal is the goat, of which there were 17,323,000 in 1949, including the valuable Angora which thrives on the uplands of the plateau. There were also 10,216,000 cattle, 1,140,000 horses, 1,633,000 asses and 22,128,000 sheep in 1950.

Wool production was 19,000 metric tons, clean basis, in 1951.

In 1941 Turkey had 1,052 industrial establishments. Staple industries have been established in iron, steel, textiles, paper, glass, sugar and cement. A large proportion of the factories are government-operated. Istanbul is the major industrial area.

TRADE. Turkey's foreign trade was as follows, in millions of Turkish pounds:

	1949	1950	1951
Exports	694	738	879
Imports	968*	877*	1,126*

* Includes military equipment imported under U. S. military assistance program.

Principal customers in 1951 were Western Germany (27%), the U. S. (21%), Britain (8%) and France (7%). Leading suppliers were Western Germany (24%), Britain (17%), the U. S. (12%) and Italy (7%). Chief exports were raw cotton (25%), tobacco (21%) and fruits, largely sultanas, (13%); leading imports, machinery, iron, steel, fuel and oil.

COMMUNICATIONS AND FINANCE. In June 1951, Turkey had a merchant fleet of 230 vessels (100 tons and over) aggregating 423,971 gross tons. The length of railways (1949) was 4,882 miles, all state-owned. Highway mileage in that year was 13,530.

Governmental expenditure and revenue estimates for the fiscal year beginning Mar. 1, 1951, were £T1,579,758,700 and £T1,344,988,200, respectively. The public debt on Nov. 30, 1949, was £T2,133,000,000.

MINERALS AND FORESTS. Turkey's rich mineral resources are still comparatively unexploited. Deposits of copper in the large field at Arghana, near the Iraq-Syrian frontier, have been estimated at 1,600,000 tons (1951 output: 17,884 short tons). Turkey is also relatively rich in coal, with large deposits in the Ereğli region on the Pontic coast some 150 miles from Istanbul (1951 output: 4,728,000 tons). A virtual world monopoly is enjoyed in meerschaum, found in the Eskişehir district. Other important minerals include chrome, manganese ore, emery and antimony.

Nearly nine per cent of the total area of Turkey in Asia is forest land, covering 25,419 square miles. A large proportion of Eastern Thrace is also under forest, covering 1,643 square miles.

TOPOGRAPHY AND CLIMATE. Turkey is divided into two natural areas by the historic waterway formed by the Dardanelles, the Sea of Marmara and the Bosphorus. Turkey in Europe comprises an area about equal to the state of Massachusetts. It is hilly country drained by the Maritsa River and its tributaries. Almost all the population is concentrated in and near the two important towns, Istanbul (Constantinople) and Edirne (Adrianople). Turkey in

Asia, or Anatolia, about the size of Texas, is roughly a rectangle in shape with its short sides on the east and west. Its center is a treeless plateau rimmed by mountains. Along the seacoast the elevation drops steeply to a wooded plain some 75 miles wide. On the land frontiers, the belt of forest clothes the foothills of the Taurus Mountains and the Armenian highlands.

Turkey has a great variety of climate. Along the coast from Antioch to the Dardanelles the climate is Mediterranean, with rainy winters and dry summers. Thence to the Bosphorus it is transitional to the type of climate with heavy year-round rainfall. Semitropical fruits and tea may be grown in the region beyond Trebizond on the Black Sea. The western plateau has a harsh steppe climate, with cold winters, hot summers and scanty rainfall, while the eastern plateau exhibits a transition from steppe to alpine climate. Istanbul has a mean annual temperature of 57° (maximum 99°, minimum 17°) and average yearly rainfall of 28.3 inches. Rain falls approximately one day out of three.

Union of Soviet Socialist Republics

Area (est.): 8,473,444 square miles* (8,173,666 in 1938).

Population (est. 1952): 207,000,000* (170,467,186 by 1939 census) (Great Russian, 53.4%; Ukrainian, 16.6%; Byelorussian, 3.1%; Uzbek, 2.9%; Tartars, 2.5%; Kazakhs, 1.8%; Armenian, Azerbaijani, Georgian, each 1.3%; more than 100 others, 10.8%).

Density per square mile. 24.4.*

Chairman of Presidium of Supreme Council: Nikolai M. Shvernik.

Premier: Joseph Vissarionovich Stalin.

Principal cities (census 1939): Moscow, 4,137,018 (capital); Leningrad, 3,191,304 (industrial center, shipbuilding); Kiev, 846,293 (industrial center, Ukraine); Khar'kov, 833,432 (iron and steel, coal); Baku, 809,347 (oil center, Azerbaijan); Gorki, 644,116 (iron and steel); Odessa (1937), 604,223 (chief Black Sea port); Tashkent, 585,005 (textiles, tobacco); Tiflis (Tbilisi), 519,175 (building materials, leather); Rostov on Don, 510,253 (grain, shipbuilding).

Monetary unit: Rouble.

Languages: See Population.

Religions: Russian Orthodox (predominant), Mohammedan, Roman Catholic, Jewish, Lutheran.

* Including acquisitions since 1939.

HISTORY. The history of Russia begins with the perhaps legendary figure of the Viking Rurik, who according to tradition came to Russia in A.D. 862 and founded the first Russian dynasty in Novgorod. The various tribes were united by the spread of Christianity in the 10th and 11th centuries; Vladimir "the Saint" was converted in 988. During the 11th century the grand dukes of Kiev held such centralizing power

as existed. In 1240 Kiev was destroyed by the Mongols, and the Russian territory was split into numerous smaller dukedoms, out of which three large centers emerged—Galicia, Moscow and Novgorod. The early dukes of Moscow extended their dominions through their office of tribute collector for the Mongols.

In the late 15th century, Ivan III, the reigning duke, acquired the rival kingdoms of Novgorod and Tver and threw off the Mongol yoke. Ivan IV, the Terrible (1533-84), first Muscovite duke to assume the title of tsar, is considered to have founded the Russian State. He crushed the power of rival princes and boyars (great land-owners), but Russia remained largely medieval until the reign of Peter the Great (1682-1725), grandson of the first Romanov tsar, Michael (1613-45). Peter effected extensive reforms aimed at Westernization, and through his defeat of Charles XII of Sweden at the Battle of Poltava (1709), he extended Russia's boundaries to the west. Catherine the Great (1762-96) continued Peter's Westernization program and also expanded Russian territory, acquiring the Crimea and part of Poland. During the reign of Alexander I (1801-25), Napoleon's attempt to subdue Russia was defeated (1812-13), and new territory was gained, including Finland (1809) and Bessarabia (1812). Alexander was the originator of the Holy Alliance which crushed for a time Europe's rising liberal movement. Between the Napoleonic Wars and World War I, a few reforms were introduced, but the autocratic power of the tsars remained unchanged.

During the reign of Alexander II (1855-81), Russia's borders were pushed to the Pacific and into central Asia. Serfdom was abolished in 1861, but heavy restrictions were imposed on the emancipated class. Revolutionary strikes following Russia's defeat in the war with Japan forced Nicholas II (1894-1917) to grant a representative national body (Duma), elected by narrowly limited suffrage. It met for the first time in 1906. Nicholas continued in his reactionary course, however, and the overwhelmingly liberal Duma had little or no influence in the government.

World War I demonstrated the corruptness and inefficiency of the tsarist regime, although the call of patriotism held the poorly equipped army together for a time. Disorders broke out in Petrograd (now Leningrad) in March, 1917, and, following the winning over of the Petrograd garrison, the revolution was in full swing. Nicholas was forced to abdicate under pressure from the Duma and was later killed by the revolutionists. A provisional government was formed, composed of both conservative and radical elements. This government, under the successive premier-

ships of Prince Lvov and Alexander Kerensky, a Menshevik or moderate socialist, soon lost ground to the radical or Bolshevik wing of the Socialist Democratic Labor Party. Finally, on Nov. 7, 1917, came the Second Revolution, engineered by Nikolai Lenin and Leon Trotsky and their small but well-disciplined Bolshevik following in the Petrograd Soviet. The government was turned over the next day to the Congress of Soviets (councils of soldiers, peasants and workers), which vested the government in a Council of People's Commissars with Lenin as premier and Trotsky as foreign minister. The humiliating Treaty of Brest-Litovsk (March 3, 1918) concluded the war with Germany, but civil war and intervention by foreign powers prevented the new Communist government from gaining control of all Russia until 1920. A brief war with Poland in 1920 resulted in Russian defeat and withdrawal.

On July 6, 1923, the vast territory under Soviet rule—previously an inchoate mass whose constituent parts were changing constantly—became the Union of Soviet Socialist Republics, formed by the union of the Russian S.F.S.R. and the Ukrainian, Byelorussian and Transcaucasian S.S.R.'s.

The sudden death of Lenin (Jan. 21, 1924) precipitated an intraparty struggle between the group led by Joseph Stalin, general secretary of the party, and the opposition, led by Trotsky, which favored not only swifter socialization at home but fomentation of revolution abroad. In 1927, Trotsky and other opposition leaders were expelled from the party and exiled. The first Five-Year Plan (1928-32) called for gradual, progressive increase in industrial and agricultural production. Its collectivization program was opposed by the Kulaks, or wealthier peasants, who were vigorously suppressed. Purges carried out in 1936-38 removed many prominent leaders of the Revolution and top army officers.

Soviet foreign policy—first featured by friendship with Germany and antagonism toward England and France and then, after Hitler's rise to power in 1933, by participation in the League of Nations and an anti-Fascist program—took another abrupt turn on Aug. 24, 1939, with the signing of a Soviet-German nonaggression pact. Territory seized from Poland (Sept., 1939) became part of the Ukrainian and Byelorussian S.S.R.'s; that secured from Finland at the conclusion of the Finnish war of 1939-40, part of the Karelian S.S.R. set up March 31, 1940; that secured from Rumania (Bessarabia and northern Bukovina), part of the Moldavian S.S.R. set up Aug. 2, 1940; and finally the formerly independent states of Estonia, Latvia and Lithuania, occupied in June, 1940, were absorbed into the U.S.S.R. as the 14th, 15th and 16th Soviet Republics. The latter annexations have not been recognized by

the United States, Britain, or the majority of other nations.

Immediately following the German attack (June 22, 1941), all necessary powers for the defense of the state were vested in the State Defense Council headed by Stalin, who had taken over the post of premier on May 6. The Germans quickly seized approximately 500,000 square miles of Soviet territory, but Soviet forces resisted stubbornly, aided by increasing amounts of matériel from the U. S. and Britain. The great Soviet counteroffensive in the Stalingrad area (Nov., 1942-Feb., 1943) marked the turning point. Soviet troops gradually pushed the Nazis back and unleashed their final great offensive on Jan. 12, 1945. The nonaggression pact with Japan (1941) was denounced in April, 1945, and, following the declaration of war on Japan (Aug. 8, 1945), Soviet Far Eastern forces quickly occupied Manchuria, Karafuto and the Kuriles.

After the war, with its eastern European satellites drawn together into a solid bloc in opposition to the western democracies, the Soviet Union launched a full-scale political offensive against the non-Communist world, particularly the United States and Great Britain.

Efforts to discredit Anglo-U. S. influence were initially a failure. The western powers countered the Soviet blockade of Berlin with a highly effective "air-lift," completed the unification of western Germany and went on to unite all of western Europe (except Spain) into a solid wall of opposition to Communist aggression through the vehicle of the North Atlantic Pact. Nevertheless, there has been no indication of a change in Soviet plans or aims, and the Korean war was interpreted by many people as the start of widespread Communist military aggression to supplement the political "cold war." Evidence of an atomic explosion in the Soviet Union in the summer of 1949 was reported by President Truman on Sept. 23, 1949.

GOVERNMENT. Under the constitution of 1936, the Soviet Union is "a Socialist State of Workers and Peasants" whose highest organ is the Supreme Council of the Union, which exercises legislative authority. It consists of two co-equal Houses—the Council of Nationalities, in which each constituent republic has 25 representatives, each autonomous republic 11, each autonomous oblast five, and each national okrug one (total 657); and the Council of the Union, elected on a nationwide basis with one representative for each 300,000 of population (total membership 682). All representatives are elected for four-year terms; the last election was held on Mar. 12, 1950. Elections amount to a blanket endorsement (or rejection) of a single list of candidates already nominated by the

Communist Party, youth organizations, collective farms and trade unions. The only election in the Western sense of the word takes place in the selection of the nominees by these groups. All citizens over the age of 18 are enfranchised.

The Presidium of the Supreme Council acts as a directive body between the sessions of the Supreme Council. It has a chairman (sometimes referred to as the Soviet president), 16 vice chairmen (one for each constituent republic), a secretary and 24 members, all elected by the Supreme Council.

The highest executive and administrative power is exercised by the Council of Ministers (formerly People's Commissars) appointed by the Supreme Council and headed by a chairman (premier) and 14 vice chairmen. It issues decrees and executive orders on the basis of laws in operation and supervises their execution. The administrative machinery is necessarily vast and complicated, since it is responsible not only for the ordinary administrative functions of government, but also for the operation of state-owned enterprises.

The 16 constituent republics of the Union are as follows: the Russian Soviet Federated Socialist Republic (capital: Moscow) covering about 80 per cent of the total area; the Ukrainian S.S.R. (Kiev); Byelorussian S.S.R. (Minsk); Armenian S.S.R. (Erivan); Azerbaijan S.S.R. (Baku); Georgian S.S.R. (Tiflis); Turkmen S.S.R. (Ashkhabad); Uzbek S.S.R. (Tashkent); Tadzhik S.S.R. (Stalinabad); Kazakh S.S.R. (Alma Ata); Kirghiz S.S.R. (Frunze); Karelo-Finnish S.S.R. (Petrozavodsk); Moldavian S.S.R. (Kishinev); Lithuanian S.S.R. (Vilnius); Estonian S.S.R. (Tallinn) and Latvian S.S.R. (Riga).

Postwar territorial acquisitions include the Carpatho-Ukraine (12,617 sq. mi.) obtained from Czechoslovakia June 29, 1945, incorporated into the Ukrainian S.S.R. as Zakarpatskaya Oblast; the Republic of Tannu Tuva in central Asia (64,000 sq. mi.) incorporated early in 1945 into the R.S.F.S.R. as the Tuvinian Autonomous Oblast; Karafuto or southern Sakhalin (13,935 sq. mi.) and the Kurile Islands (3,944 sq. mi.), occupied by Soviet troops in Aug., 1945, and incorporated into the Khabarovsk Krai of the R.S.F.S.R.; the northern part of eastern Prussia (about 7,000 sq. mi.), placed under *de facto* Soviet administration at the Potsdam Conference and incorporated into R.S.F.S.R. as Kaliningrad (formerly Königsberg) Okrug; the Petsamo district of Finland, obtained *de jure* under the 1947 treaty and incorporated into the Murmansk Oblast of the R.S.F.S.R.; and Poland east of the Curzon Line (69,860 sq. mi.), under terms of the Soviet-Polish treaty of Aug. 16, 1945, incorporated into the Ukrainian and Byelorussian S.S.R.'s.

COMMUNIST PARTY. The only political party permitted to exist in the Soviet Union is the All-Union Communist Party, which now has more than 6,000,000 members. Its organization parallels the entire governmental and economic structure of the country and guides all important action through instructions from the central organs to Party members who occupy most of the important political and economic positions. Its highest organ is the All-Union Party Congress, which meets irregularly. The Congress elects a Central Committee (71 members, 68 alternates), which in turn elects: (1) an executive body (Politburo) with 11 members and one alternate, (2) an organizational bureau (Orgburo), which manages the Party, (3) a secretariat headed by a general secretary (Stalin), and (4) a Committee of Party Control with 31 members.

An All-Union Party Congress was called to meet on Oct. 5, 1952, to revise the party organization and to approve a fifth 5-year plan to increase production 70% above the 1950 level. This was the first All-Union Party Congress to be called since March 1939.

In Sept., 1947, the Cominform (Communist Information Bureau), a Soviet-dominated organization composed of representatives from nine national Communist parties, was established in Belgrade. Its headquarters were moved to Bucharest after the break with Tito in June, 1948. It was designed to replace the Comintern (dissolved in 1943) as an instrument in the promotion of worldwide communism. The new unit was described as representing the core of a united front against the threat of "reactionary and imperialist aggression," typified most immediately in the Soviet-boycotted European Recovery Program.

DEFENSE. The land, air and sea forces were under the unified control of the Armed Forces ministry until Feb., 1950, when a separate Navy ministry was created. Military service is compulsory; the initial training period varies from 2 to 5 years. The armed forces, which were estimated to have reached a peak of more than 15,000,000 in 1945, numbered approximately 4,500,000 in 1951. The strength of the army, including MVD and MGN troops (secret police organizations with paramilitary formations), was about 3,300,000, organized in more than 200 line divisions, not all of which were at full strength (10,000), with supporting troops. The air force had about 600,000 men and 20,000 planes; the navy, about 600,000 men. More than 500,000 troops were stationed outside Soviet borders, including 30 divisions in eastern Germany. At least 700,000 men were estimated to be located in Siberia and the Soviet Far East.

Information about the Red fleet is as

vague as that about the army and air force. In 1952, it was believed to have a tonnage of about 600,000, including 3 battleships, 14 cruisers, 2 coast defense ships, 82 destroyers, 53 escort vessels, 370 submarines, and large flotillas of coastal and river craft, patrol vessels, minesweepers and other small ancillary craft. An extensive naval-construction program was part of the fourth Five-Year Plan.

In 1949 the Soviet Union received 45 vessels from the Italian fleet, including a battleship and a cruiser. At the same time it returned to Britain and the U. S. ships borrowed in 1944, including the battleship H.M.S. *Royal Sovereign* and the cruiser U.S.S. *Milwaukee*.

On its face, about 24 per cent of the 1952 budget was allotted for military expenditures, but expenses linked to the armed forces in other parts of the budget greatly increased this percentage.

EDUCATION. The school system throughout the country is based upon uniform text books and the same syllabus, although a number of hours are allowed for native language, literature and history in the non-Russian schools. All schools are state controlled, and compulsory education begins at the age of seven. Coeducation is being abolished and separate schools established for boys and girls. The boys' curriculum stresses military training; the girls', housework. Enrollment in primary and secondary schools in 1951 was 37,000,000. Under the Defense Ministry are the newly established Suvorov military schools for the training of future officers. In 1951, 880 colleges and institutions of higher learning existed, with 1,250,000 students. Literacy was estimated at 81% in 1940.

AGRICULTURE. Formerly an agricultural country, the Soviet Union has grown since about 1920 into an industrial-agricultural power, with agriculture making great advances at the same time. The total area under cultivation was 259,500,000 acres in 1913, 291,600,000 acres in 1929, and 388,000,000 acres in 1941.

PRODUCTION OF GRAIN CROPS

(in millions of bushels; U. S. Department of Agriculture estimates)

Grain	1935-39 average	1948	1949
Wheat	1,124	1,025	1,100
Rye	885	930	950
Barley	425	315	310
Malze	170	135	140
Oats	1,165	780	775

ANIMAL INDUSTRY

(millions of head)

Animal	1933	1947	1950
Horses	16.6	11.9	13.7
Cattle	38.4	52.0	57.2
Sheep and goats	50.2	64.7	99.0
Pigs	12.1	13.4	24.1

The Union's diverse climate permits the growing of the most varied crops, ranging from the temperate to the subtropical. Under the fourth Five-Year Plan, grain production increased to 124,700,000 metric tons in 1950 (a 5% increase over the pre-war average), sugar beets to 24,300,000 (14% increase), and raw cotton to 3,750,000 (60% increase). Total grain production was estimated to have dropped to 114,600,000 metric tons in 1951, however.

INDUSTRY. Almost all industry in the Soviet Union is carried on by organizations owned or controlled by the state. About 80 per cent of the total state industries is controlled by 291 large trusts. The industrialization of the country has been a major objective of its leaders. Completion of the first two Five-Year Plans (1928-32, 1933-37) and of most of the third (1937-42) saw a great increase in the volume and versatility of Soviet industry.

The large-scale evacuation of plants to the East and the construction of new plants there during World War II, coupled with the eastward orientation of industry prior to the war, has shifted the balance to newly developed regions in Central Asia and Siberia from the Moscow-Leningrad area and the Ukraine. The new regions are now the center of Soviet industrial power, accounting for almost all magnesium and aluminum production, and more than 60 per cent of the pig iron and steel production. The production of consumers' goods continues to be subordinate to the production of heavy capital equipment.

Large increases in production were reported under the fourth Five-Year Plan, which ended in 1950. Pig-iron production in 1951 was about 21,900,000 metric tons; steel production, about 31,600,000 tons.

The plan contemplated construction of 45 additional blast furnaces, 180 open-hearth furnaces, 90 electric furnaces and 104 rolling mills. It also called for a 100 per cent increase in engineering production and equipment and for an increase of 3.7 times in the metallurgical industries. Even at the 1950 rate, however, Soviet

steel production was on a level only about the same as that of the U. S. in 1913. The value of capital investments in the period 1946-50 was fixed at 157,500,000,000 roubles.

According to official Soviet sources, production in the final quarter of 1947 reached the 1940 level, and output in 1950 was 73 per cent above the 1940 level and 127 per cent above that of 1946.

FOREIGN TRADE. Soviet foreign trade is a state monopoly, and foreign goods are purchased in accordance with an over-all plan conducted under the supervision of the Foreign Trade Ministry. Connected with the Ministry are a number of export-import and transport combines.

The U.S.S.R. share in world exports (1938) was 1.1 per cent; imports, 1.2 per cent. No later statistics are available. Exports were grain, 21.9 per cent; lumber and timber, 16.8 per cent; furs, 9.9 per cent; petroleum and products, 7.9 per cent; and cotton goods and threads, 4.5 per cent. Imports included machines and industrial equipment, 26.3 per cent; iron and steel, 10.3 per cent; wool, 5.3 per cent; electrical machines and parts, 4.2 per cent; and live animals, 3.7 per cent. From June 22, 1941, until 1945, large supplies were received from Britain and Canada, and from Oct. 1, 1941, until after V-J Day, a total of \$11,141,470,000 in lend-lease assistance came from the U. S.

COMMUNICATIONS. According to *Lloyd's Register* of shipping, the merchant marine on June 30, 1951, had 989 ships (over 100 tons) aggregating 2,221,645 tons. Merchant ship construction was made subordinate to naval construction under the fourth Five-Year Plan. The principal ports include Leningrad on the Gulf of Finland, Murmansk and Archangel on the Arctic Ocean and White Sea, respectively; Vladivostok on the Sea of Japan; and the Black Sea ports of Odessa, Sevastopol, Novorossiisk and Batum. River and canal transport is extremely important. In 1950 there were about 75,000 miles of navigable rivers and canals.

Railway mileage was estimated in 1950 at 70,000, of which about a third was double-tracked. Freight traffic reached 569,117,490 tons and 1,777,800,000 passengers were carried in 1938. Highway mileage (1945) totaled 849,520, but only 7,146 mi. (less than in Vermont) were reported as all-weather roads in 1949. Under the latest Five-Year Plan, war-devastated railway lines were rebuilt and another 4,510 miles were to be constructed, including 3,310 miles in Siberia.

Air traffic is assuming great importance, especially in the central Asiatic portion of the U.S.S.R. Prior to World War II, the network of air routes covered 69,845 miles; in 1950 the estimated length was 109,000

FOURTH FIVE-YEAR PLAN

(Index numbers of industrial production; 1946 = 100)

	1943	1949	1950
Total production	155	186	227
Pig iron	139	165	193
Steel	140	175	203
Coal	128	145	161
Petroleum	134	153	174
Automobiles	273	617	870
Cement	192	242	307
Tractors	426	680	810
Cotton textiles	165	188	203
Woolen textiles	170	202	209
Leather footwear	172	210	262

miles, over which some 2,000,000 passengers were carried (300,000 in 1938). Moscow is connected with the capitals of all the Union republics by daily air service, and there are regular services to the Far East and Europe. No foreign air routes have been allowed to enter the U.S.S.R.

FINANCE. Recent financial data are as follows, in billions of roubles:

	1950	1951	1952*
Revenue	422.1	468.0	509.9
Expenditure	412.7	441.3	476.9

* Budget estimate.

The budget includes charges for the financing of industry, transportation, agriculture and commerce—items which ordinarily are handled through private channels in other countries. The internal debt in 1939 amounted to \$2,667,369,471.

MINERALS. The U.S.S.R. is probably the richest country in the world in mineral resources, containing deposits of almost every known mineral. It ranks second in coal production, first in chromite, second in iron ore, third in petroleum, second in gold, and retains high rank in the production of numerous others. The richest mineral region is that of the Ural Mountains, which lacks only good coking coal. Total coal production in 1951 was estimated at 288,000,000 metric tons; iron ore (1950), perhaps 40,000,000 tons. Other production estimates included aluminum (1950) 190,000 metric tons; copper (1951) 280,000 short tons; lead (1951), 141,500 short tons; platinum (1948) 125,000 oz.; tin (1949) 9,000 metric tons; zinc (1951) 168,000 short tons; gold (1950) 7,000,000 oz. Petroleum production was estimated at 301,000,000 barrels in the year 1951, including eastern Poland and Sakhalin. Uranium deposits are believed to exist in the U.S.S.R.

FORESTS. With a forested area of about 2,500,000,000 acres, the U.S.S.R. possesses a large proportion of the world's timber reserves. Most of the forested area is in Siberia, but there are also valuable stands in the Caucasus. Plans were made late in 1948 for the planting of huge forest belts 60 to 90 mi. wide in the southern steppes to protect fertile food-producing areas from the dry winds of the central Asian and Caspian deserts.

FISHERIES AND FURS. The rivers, lakes and surrounding seas (except the Black Sea) are rich in fish; the catch averages more than 1,500,000 tons annually. The acquisition of former Japanese fisheries in Karafuto and the Kuriles will double the output of the Far Eastern fish industry. Trapping is an important secondary industry, especially in eastern Siberia.

TOPOGRAPHY. The U.S.S.R. is the largest unbroken political unit in the world, occupying more than one-seventh of the

land surface of the globe. The greater part of its territory is a vast plain stretching from eastern Europe to the Pacific Ocean. This plain, relieved only occasionally by low mountain ranges (notably the Urals), consists of three zones running east and west: (1) the frozen marshy tundra of the Arctic; (2) the more temperate forest belt; and (3) the steppes or prairies to the south, which in southern Soviet Asia become sandy deserts. The topography is more varied in the South, particularly in the Caucasus between the Caspian and Black Seas, and in the Tien-Pamir mountain system bordering Afghanistan, Sinkiang and Mongolia. Mountains (Stanovoi and Kolyma) and great rivers (Amur, Yenisei, Lena) also break up the sweep of the plain in Siberia.

CLIMATE. The climate necessarily is varied, but for the most part is continental. In general the climate of the northern and central regions is characterized by long, cold winters and by summers which are shorter and cooler than those in the northern part of the United States. Siberia has the coldest winters in the world; the January average at Verkhoyansk is -59° . In the southern regions the climate varies between temperate and subtropical. The Uzbek, Turkmen and Kazakh S.S.R.'s are largely desert and semi-desert areas. In the central belt rainfall is fairly uniform, averaging about 15 inches east of the Urals and 20 inches to the west. In the tundra to the north it drops to about 8 inches and to 4 inches in the southern regions.

Average daily low temperature at Moscow is about 5° (high, 14°) in January, the coldest month; average daily high is 71° during July, the warmest month.

Uruguay (Republic)

(República Oriental del Uruguay)

Area: 72,172 square miles.

Population (est. 1949): 2,650,000 (predominantly of European extraction).

Density per square mile: 36.7.

President of Federal Council: Andrés Martínez Trueba.

Principal cities (est. 1948): Montevideo, 850,000 (capital); Paysandú, 50,000 (meat packing); Salto, 48,000 (cattle raising); Mercedes, 33,000 (farming center).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. Uruguay, a little larger than North Dakota, has many distinctions. It is the smallest and most densely populated of the sovereign South American nations. It has one of the highest proportions of white population and one of the lowest illiteracy rates in all Latin America. Despite constant pressure from Argentina, and some concessions to that powerful

neighbor, Uruguay has managed to remain one of the most democratic and progressive of Latin American states.

Juan Díaz de Solís, a Spaniard, discovered Uruguay in 1516, but the Portuguese were first to settle it when they founded Colonia in 1680. After a long struggle, Spain wrested the country from Portugal in 1778. Uruguay revolted against Spain in 1811, only to be conquered in 1816-20 by the Portuguese from Brazil. Independence was re-asserted with Argentine help in 1825, and the republic was set up in 1830. There followed a long period of factional strife between two groups still in existence at the present time—the Blancos and the Colorados. President José Batlle y Ordóñez launched a series of social reforms in 1911-15 which started Uruguay on its modern career of democracy, although Gabriel Terra, elected president in 1931, seized dictatorial power and modified the constitution to permit his re-election.

Terra was succeeded in 1938 by Alfredo Baldomir and, in 1943, by Juan José de Amézcaga, both of whom worked closely with the U. S. on global and hemispheric policy. In 1946, Tomás Berreta was elected president; he took office March 1, 1947 for a four-year term and was replaced after his death on Aug. 2, 1947, by Luis Batlle Berres. The latter was succeeded on Mar. 1, 1951, by Andrés Martínez Trueba, who became President of the Federal Council effective Mar. 3, 1952.

GOVERNMENT AND DEFENSE. Under the 1934 Constitution, as amended in 1951, the executive power is exercised by a Federal Council of 9 members, 6 of the majority and 3 of the minority party, normally popularly elected for 4-year terms. There is a bicameral Congress composed of a 99-member Chamber of Deputies and a 230-member Senate elected for 4 years. All literate citizens may vote, including women, who may also sit in congress.

Service in the army (1950 strength: 26,000) is voluntary, but national guard service is compulsory in wartime. There is a police force of about 5,500, and a small air force. The navy has a 1,150-ton sloop, a surveying vessel and several smaller craft.

SOCIAL AND ECONOMIC CONDITIONS. Uruguay's illiteracy rate is 35 per cent; primary education is compulsory, and all education is free. There was in 1950 a total of 212,509 pupils in 1,722 public schools and 11,948 students in the university at Montevideo. Uruguay's high percentage of white population includes many foreign-born, mostly Italian and Spanish, but some Brazilian, Argentine and French.

Cattle, sheep, meat and wool dominate the Uruguayan economy. With nearly 80 per cent of its grassy land devoted to grazing, there were in 1951, 23,408,642 sheep and 8,665,658 cattle. Wool production in 1951 was 95,000 short tons, greasy. With

only about 5 per cent of the land cultivated, a third of this grows wheat, the chief crop (1950-51: 479,202 short tons). Other crops are corn, flax for linseed, oats, potatoes, beans, fruits, tobacco, alfalfa and grapes. Wine production in 1951 was about 19,200,000 U. S. gallons.

Uruguay slaughters more than two million head of cattle and sheep a year, and meat processing is the largest manufacturing industry. There are many modern plants for chilling or freezing meat, and plants for liquid extract of beef.

During World War II Uruguay doubled its foreign trade, and most of the increase went to the U. S. Recent data are as follows (in millions of U. S. dollars):

	1949	1950	1951
Exports	191.7	254.3	236.3
Imports	180.8	199.6	315.7

In value, wool was the chief export (41%) in 1951, followed by beef and mutton (16%) and hides and skins (10%). Chief customers were the U. S. (43%), Britain (18%) and Belgium (5%). The U. S. (38%) and Britain (11%) were the principal suppliers. Leading imports included machinery, vehicles, gasoline, textiles and sugar.

Steamers of 14-foot draft can travel half-way up the Uruguay River border, and smaller craft can go nearly the length of that border. The Río Negro is navigable only in its lower course. Railway mileage in 1949 totaled 1,874. Prior to 1948, 90 per cent was British-owned, but in that year the government purchased complete interest. Road mileage was 26,000 in 1948, of which 3,051 mi. were paved.

Actual government expenditure in 1950 was 306,000,000 pesos; revenue, 280,000,000 pesos. The funded public debt on June 30, 1951, was 895,030,000 pesos.

Minerals are of slight importance. In the north, some gold is mined and there are small deposits of silver, lead, copper, talc and lignite.

TOPOGRAPHY AND CLIMATE. Uruguay, a low rolling plain in the south and a low plateau in the north, has a 120-mile Atlantic shore line, a 235-mile frontage on the Río de la Plata, and 270 miles on the Uruguay River, its western boundary. The climate is good. Average summer temperature in January and February is 71°, and average winter temperature in July is 50°. Frost is almost unknown. Average rainfall is 35 inches, heaviest in the autumn.

Vatican City State

(Stato Città Vaticana)

Area: 108.7 acres.

Population (est. 1948): 800 (Italian, 85%; Swiss and others, 15%).

Ruler: The Supreme Pontiff, Pius XII.

Monetary unit: Lira.
 Languages: Latin, Italian.
 Religion: Roman Catholic.

The Vatican City State, sovereign and independent, is situated on the Vatican hill on the right bank of the Tiber in northwest Rome. The area has been intimately associated with the history of the Roman Catholic Church since the time of the martyrdom of St. Peter. From it the Pope exercised temporal sway for many centuries over a large part of central Italy; in 1859 the Papal States comprised an area of some 17,000 square miles. During the struggle for Italian unification (1860-70), most of this area became part of Italy.

By an Italian law of May 13, 1871, the temporal power of the Pope was abrogated, and the territory of the Papacy was confined to the Vatican and Lateran palaces and the Villa of Castel Gandolfo. The Popes consistently refused to recognize this arrangement, and by the Lateran Treaty of Feb. 11, 1929, between the Vatican and the Kingdom of Italy, the exclusive dominion and sovereign jurisdiction of the Holy See over the city of the Vatican was again recognized, thus restoring the Pope's temporal authority over the area. Accompanying the treaty were conventions regulating the position of the Catholic Church in Italy and providing for reimbursement to the Vatican in final settlement of the claims of the Holy See against Italy for the loss of temporal power in 1870-71.

The Supreme Pontiff is Pius XII (Eugenio Pacelli), born at Rome, March 2, 1876, proclaimed cardinal in 1929, and elected Pope on March 2, 1939.

The Pope has full legal, executive and judicial powers. Executive power over the area is in the hands of a governor appointed by the Pope and exclusively responsible to him.

The College of Cardinals is the Pope's chief advisory body, and upon his death the cardinals elect his successor for life. The cardinals themselves are created for life by the Pope. When complete, the College consists of 70 members: 6 Cardinal-Bishops, 50 Cardinal-Priests, and 14 Cardinal-Deacons. In September 1952, there were 22 vacancies.

The central administration of the Roman Catholic Church throughout the world is carried on in the Vatican by 12 congregations, 3 tribunals and 5 offices.

In its diplomatic relations with foreign countries, the Vatican is represented by the Papal Secretary of State. In 1951 the Vatican maintained diplomatic relations with 39 states through its papal-nuncios (ambassadors) and inter-nuncios (ministers). Apostolic Delegates, representatives without accredited rank, are maintained in a number of other countries.

The Vatican has its own railway station, postal facilities, coinage, newspaper, radio and television system. In addition to the Vatican itself, which includes St. Peter's Square, extraterritorial rights are enjoyed in 13 buildings in the city of Rome outside Vatican City.

Venezuela (Republic)

(Estados Unidos de Venezuela)

Area: 352,143 square miles.
 Population (census 1950): 4,986,000 (mestizo, 65%; white, 20%; Negro, 8%; Indian, 7%).

Density per square mile: 14.2.

Executive: Governing junta headed by Germán Suárez Flamerich.

Principal cities (census 1950): Caracas, 487,000 (capital); Maracaibo, 232,000 (oil); Barquisimeto, 105,000 (coffee, sugar, mining); Valencia, 88,000 (farming center).

Monetary unit: Bolívar.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. Venezuela, a third larger than Texas, has a stormy political past and the distinction of being the world's second greatest producer of oil, outranked only by the U. S. In South America it is the sixth country in size and the only independent country lying entirely north of the equator. Simón Bolívar, who led the liberation of much of the continent from Spain, was born in Caracas.

Columbus discovered Venezuela on his third voyage in 1498. A subsequent Spanish explorer, for reasons of his own, gave the country its name, meaning "Little Venice." There were no important settlements until Caracas was founded in 1567. With Bolívar taking part, Venezuela was one of the first South American colonies to revolt against Spain in 1810, but it was not until 1821 that independence was won. Federated at first with Colombia and Ecuador, the country set up a republic in 1830, and then sank for many decades into a condition of revolt, dictatorship and corruption climaxed by the ironhand regime of Antonio Guzmán Blanco from 1870 to 1889. The U. S. intervened in 1895 to force an arbitration between Great Britain and Venezuela in a dispute over the boundary with British Guiana. From 1908 to 1935, when he died, General Juan Vicente Gómez ruled tyrannically over the nation, picking various satellites to alternate with him in the presidential palace. He was succeeded in 1936 by General Eleazar López Contreras. The president during World War II, General Isaías Medina Angarita, co-operated with the U. S. but permitted such political freedom that he was overthrown on Oct. 19, 1945.

Out of that revolt, militarist in nature, the Socialist leader Dr. Rómulo Betancourt emerged as provisional president,

and his government received U. S. recognition on Oct. 30, 1945. Betancourt's party, the liberal Acción Democrática, won 137 out of 160 seats in an election held Oct. 27, 1946, for a Constituent Assembly to draft a new constitution. The well-known writer, Rómulo Gallegos, easily won the presidential election of Dec. 14, 1947, as the candidate of Acción Democrática. The latter party also won 83 of the 110 seats in the chamber of deputies.

Venezuela's brief experience with democracy was abruptly ended on Nov. 24, 1948, however, by an army-led conservative coup which ousted Gallegos.

GOVERNMENT AND DEFENSE. Venezuela is a union of 20 states, a federal district and two territories. Before November, 1948, Congress had a 46-member senate and a 110-member chamber of deputies, both elected directly. Under the constitution promulgated July 5, 1947, the president was elected by popular vote for five years and could not succeed himself. The constitution (Venezuela's 20th) established comprehensive political and social rights, including woman suffrage.

Military service is compulsory, with a one- to three-year initial training period. The army has about 10,000 men. The navy has several gunboats, corvettes, and other minor craft. There is a small air force.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy in 1949 was estimated at 60 per cent. Primary education between ages of 7 and 14 is compulsory. In Oct. 1949, 464,697 were enrolled in more than 5,300 primary schools; secondary and special schools numbered 151 with 24,925 students in Apr. 1951. There are three universities—Los Andes at Mérida, Central University at Caracas, and Zulia at Maracaibo.

Agriculture engages the majority of the population, but production has failed to keep pace with the food needs of the rapidly increasing population. The principal crop is coffee, grown on 60,000 plantations on the slopes of the coastal mountains. Annual production averages 1,000,000 bags of 60 kilograms each. Exports of cacao in 1951 were 14,090 tons. Other important crops are sugar, tobacco, cotton, corn, wheat and tropical fruits. Stockraising, centered east of Lake Maracaibo, and on the llanos, is important. In 1950 there were 5,859,654 cattle and 1,292,808 hogs.

There are few industries, the most important being woodworking, cotton textiles and tobacco products. Electric power is plentiful, and a law of 1943 prepared the way for the beginning of an oil refining industry. The 15 oil refineries and topping plants in 1951 had an output of over 115,000,000 bbl. In 1951, 2,043,460,000 cigarettes and 621,491 metric tons of cement were produced.

Oil, most of which is found on the northwest shore of Lake Maracaibo, is by far the dominant factor in the economy. It accounts for 95 per cent of exports, gives the country a big foreign trade balance and a treasury surplus. Recent foreign trade statistics, in millions of bolívars:

	1949	1950	1951
Exports	3,360	3,889	4,573
Imports	2,241	1,798	2,149

In 1951 the U. S. supplied 67 per cent of the imports; Britain, 6 per cent. Leading imports were machinery and equipment, metals and manufactures, foodstuffs, beverages and textiles. In addition to petroleum (97%), the chief exports were coffee and cacao. Most of the oil goes to the U. S. via the islands of Curaçao and Aruba, refining centers in the West Indies. In 1950, those islands took 52 per cent of the exports; the U. S., 30 per cent.

Highways include 3,829 miles for all-weather use, and 1,600 miles of unimproved road. Railway mileage is about 685, largely in unconnected short lines, ten national and two British-owned. There is an extensive air service. La Guaira and Puerto Cabello are the chief seaports. Navigable rivers total 6,500 miles. Most of the tonnage sent along the Orinoco—navigable for 700 miles for river steamers of 12-foot draft—is transhipped at Port of Spain, Trinidad.

Actual government expenditure in the fiscal year 1950-51 was 2,134,000,000 bolívars; revenue, 2,112,000,000 bolívars. There is no foreign debt.

Oil production increased from 116,000,000 barrels in 1931 to 622,194,695 barrels in 1951 (1950: 546,764,625 barrels). In addition to oil, Venezuela has gold mines in the region southwest of the Orinoco delta. Output in 1951 was 2,860 troy oz. Of minor importance are bauxite, coal, copper, tin, asbestos and asphalt. Diamond production in 1951 was 63,745 carats. A subsidiary of Bethlehem Steel Corp. began the mining of iron ore in the El Pao area south of the Orinoco river in 1950, while a U. S. Steel Corp. subsidiary went ahead with preliminary development operations on a rich "iron mountain" south of Ciudad Bolívar on the Orinoco.

Much of the country is covered by forests still barely exploited, particularly south of the Orinoco. One of the oldest industries is the pearl fisheries off Margarita, Coche and Cubagua islands.

TOPOGRAPHY AND CLIMATE. An unusual setting of mountain systems breaks Venezuela into four distinct areas: (1) the Maracaibo lowlands; (2) the mountainous region in the north and northwest; (3) the Orinoco basin with the llanos (vast grass-covered plains) on its northern border and great forest areas in the south

and southeast; (4) the Guiana highland, south of the Orinoco, accounting for nearly half the national territory. About 80 per cent of Venezuela is drained by the Orinoco and its 400 tributaries. The coast line, 1,876 miles long, is indented in the northwest by the Gulf of Maracaibo. A narrow channel joins the gulf to Lake Maracaibo, which is nearly the size of Lake Ontario.

The climate is tropical and unhealthful except where modified by altitude; it approaches the mild temperate in the higher western mountains. Most rainfall occurs between April and October, and the rest of the year is dry. At La Guaira, the mean annual temperature is 81°, at Caracas, 70°, at Cumaná, 83°.

Yugoslavia (Republic)

(Federaciona Narodna Republika)

Jugoslavija)

Area: 99,044 square miles.*

Population (est. 1952): 16,545,000 (1931: Serbian, 46%; Croat, 28.5%; Slovene, 8.5%; German, 3.6%; others [Magyar, Albanian, Rumanian, Czech], 13.4%).

Density per square mile: 167.0.*

Chairman of Presidium of National Assembly: Ivan Ribar.

Prime Minister: Josip Broz (Tito).

Principal cities (census 1948): Belgrade (Beograd), 388,246 (capital); Zagreb, 290,417 (Croat commercial center); Ljubljana, 120,944 (Slovenian industrial center); Sarajevo, 118,158 (Bosnian manufacturing center); Subotica, 112,551 (wheat, livestock).

Monetary unit: Dinar.

Languages: Serbo-Croat, Slovene, Macedonian (all official).

Religions (1931): Serbian-Orthodox, 48.7%; Roman Catholic, 37.45%; Mohammedan, 11.2%; Protestant, 1.66%; Jewish, .49%; Greek Catholic, .32%; others, .18%.

* Including 1947 treaty awards.

HISTORY. Yugoslavia, twice the size of Pennsylvania and fronting on the Adriatic Sea opposite Italy, was formed in 1919 out of some of Europe's oldest trouble spots in the Balkans. After a brief and unstable history of 25 years, it emerged from World War II as a Russian satellite. World amazement, however, followed an attack made June 28, 1948, by the Soviet-dominated Cominform on Marshal Tito and the Yugoslav Communist party for inspiring a "hateful" policy against the Soviet Union and retreating from the Communist line in foreign and domestic policies. Unlike other officials similarly attacked by Soviet organs in the past, Tito denounced the Cominform's action and still continued in full power despite further repeated attacks by the Cominform and members of the Soviet east European bloc. On Sept. 29, 1949, the Soviet Union denounced its 1945 treaty of friendship with Yugoslavia.

The 1919 components of Yugoslavia were the old kingdoms of Serbia and Montenegro, and the following: Bosnia-Herzegovina, formerly administered jointly by Austria and Hungary; Croatia-Slavonia, which had had limited autonomy under Hungary; and Slovenia and Dalmatia, formerly administered by Austria.

Alexander I, son of King Peter of Serbia, became the first king of the new country on Aug. 16, 1921. His reign was a rocky one because the Croats, under Dr. Stephen Radić, unceasingly sought autonomy. Finally, a Croat assassinated Alexander in Marseille in Oct., 1934, and since his son Peter was a minor, a regency was set up under Prince Paul, the new king's uncle.

After pursuing an increasingly pro-Axis policy under the regent, Yugoslavia signed the Axis Pact on March 25, 1941; this caused the overthrow of the government two days later. On April 6 the country was invaded by the Nazis and was speedily occupied. While the king and government fled to the Near East and later to London, Yugoslavia was divided into German, Italian, Hungarian and Bulgarian occupation zones. Puppet regimes were established in Croatia and Serbia.

Inside Yugoslavia, the Axis occupation was fought by two guerrilla armies—the Chetniks under Draža Mihailović, who supported the monarchy; and the Partisans under Marshal Tito (Josip Broz), who leaned toward Russia. These two groups fought not only the Germans, but also each other. In Nov., 1943, Tito established an Executive National Committee of Liberation to act as a provisional government, thus repudiating King Peter in exile.

In the elections of Nov. 11, 1945, Tito's forces won overwhelmingly, partly because the monarchist factions boycotted the balloting. Convening on Nov. 29, the new Assembly abolished monarchy and set up the Federal People's Republic of Yugoslavia. Tito was prime minister, and his government won British and U. S. recognition.

The Tito government embarked upon an internal policy of ruthless oppression and elimination of opposition factions, including the summary trial and execution of Mihailović in 1946. In April, 1947, it initiated a five-year plan aimed at improvement of agriculture and heavy expansion of industry. Conflict soon arose within the government as to the rate at which socialization should be pushed, and the dismissal in May, 1948, of officials favoring an intensified program led in part to the Cominform blast at Tito in June.

Externally the government pursued, until 1948, its uncompromising support of Moscow, as manifested by Yugoslav aid to anti-government Greek guerrillas, which had led to a U. N. inquiry in 1947. Soviet support enabled the nation to secure most

of Italian Istria under the 1947 peace treaty, but efforts to secure sovereignty over the key port of Trieste were unsuccessful.

Cominform hostility has remained implacable since 1948, while Yugoslavia's relations with the western powers have gradually improved.

GOVERNMENT AND DEFENSE. The constitution of Jan. 31, 1946, is derived from Moscow. There is a federal assembly with one representative for each 50,000 electors in the country. There is a "house of the peoples" in which the six federal units—Serbia, Croatia, Slovenia, Bosnia-Herzegovina, Macedonia and Montenegro—each have 25 representatives, while three other areas have a total of 25. The presidium, a joint committee of both houses, carries on when parliament is out of session, but actual control of the country is in the hands of the Yugoslav Communist Party.

The army, based upon the National Liberation Army and partisan detachments which at one time had a strength of about 800,000, was unofficially estimated to number from 500,000 to 600,000 in 1950, including police forces. Equipment generally is poor. The air force had about 600 planes in 1950. The navy was believed to include 4 submarines and 5 escort vessels on Jan. 1, 1952. It received several small ships from the Italian fleet in 1948.

SOCIAL AND ECONOMIC CONDITIONS. Education on the elementary level is compulsory and free. In 1949-50, there were 12,742 elementary schools with 1,640,954 pupils, 1,242 secondary schools with 434,202 students and 1,249 technical schools with 176,631 students. The various universities and technical colleges had a total enrollment of 60,566.

Agriculture occupies about 80 per cent of the population. The principal crops are corn, wheat, sugar beets, hemp, hops, opium (in Macedonia) and tobacco (chiefly in Macedonia and Herzegovina). Crop figures in 1951 were as follows, in metric tons: wheat, 2,277,385; maize, 4,032,667; sugar beets, 1,936,643; tobacco, 27,804; potatoes, 1,621,307; flax, 16,828. Excellent wines are produced in Dalmatia and Herzegovina and along the Danube (production 1951: 156,675,000 U. S. gallons). The fruit industry is important, especially in Serbia and Bosnia. Wool production in 1951 was 11,300 metric tons.

Manufactures are limited for the most part to consumers' goods. Legislation passed Dec. 5, 1946, nationalized all private economic enterprises, public works and industries in 42 branches of the national economy including mining, metallurgy, all

industries processing natural products, food processing, beverages, building, transportation, and all land, sea and air communications.

Yugoslavia has only limited access to ports on the Adriatic because of the difficulty in crossing the coastal range with railways and highways. Waterways, especially the Danube, are important. The merchant marine in 1951 totaled 112 vessels (of over 100 tons) with a gross tonnage of 239,329. Railway mileage in 1949 was 7,223; highway mileage in 1950, 30,184.

Recent trade data are as follows (in millions of dinars):

	1949	1950	1951
Exports	9,790	7,930	9,184
Imports	14,880	11,791	12,110

Chief exports in 1951 were sawed lumber (18%), refined lead (12%) and maize (7%). Leading customers were Britain (18%), Western Germany (17%) and the U. S. (15%); leading suppliers, the U. S. (16%), Italy (14%) and Western Germany (13%).

The 1952 budget (computed at free market prices as opposed to fixed prices used in prior years) balanced revenue and expenditure at 341,559,600,000 dinars.

Yugoslavia is the Balkans' principal mineral producer. Production in 1951 was as follows, in metric tons: coal, 7,910,582; lignite, 4,132,000; blister copper, 32,011; iron ore, 581,352; chrome (concentrates), 24,653; bauxite, 453,357; manganese ore, 12,868; refined lead, 60,068; raw zinc, 13,223. Many rushing mountain streams make a high potential of hydroelectric power, used often in mine development.

Forests cover about 30 per cent of the country, with beech, fir and oak common.

TOPOGRAPHY AND CLIMATE. About half of Yugoslavia is mountainous. In the north, the Dinaric Alps rise abruptly from the sea and progress eastward as a barren limestone plateau called the Karst. Montenegro is a jumbled mass of mountains, containing also some grassy slopes and fertile river valleys. Southern Serbia, too, is mountainous. A rich plain in the north and northeast, drained by the Danube, is the most fertile area of the country.

The Danube and tributaries—the Drava, Sava and Morava—in the northeast are the principal rivers. On the Adriatic, Yugoslavia's climate is mild and Mediterranean, but in the interior the winters are cold and the summers hot. January temperatures in Belgrade average about 30°, and summer temperatures are usually in the 70's. Rainfall is heaviest throughout the country from October to January.

Explorations and Discoveries

Africa

Country or place	Event	Explorer or discoverer	Date
Sierra Leone	Visited	Hanno, Carthaginian seaman	c. 520 B.C.
Congo River	Mouth discovered	Cão, Portuguese navigator	c. A.D. 1484
Cape of Good Hope	Doubled	Bartholomeu Diaz, Portuguese navigator	1488
Gambia River	Explored	Mungo Park, Scottish explorer	1795
Sahara Desert	Crossed	Denham and Clapperton, English explorers	1822-23
Zambezi River	Discovered	Livingstone, Scottish explorer	1851
Sudan	Explored	Barth, German explorer	1852-55
Victoria Falls	Discovered	Livingstone	1855
Lake Tanganyika	Discovered	Burton and Speke, British explorers	1858
Congo River	Traced	Stanley, British explorer	1877

Asia

Punjab (India)	Visited	Alexander the Great	327 B.C.
China	Visited	Marco Polo, Italian traveler	c. A.D. 1272
Tibet	Visited	Odoric, Italian monk	c. 1325
Southern China	Explored	Conti, Italian adventurer	c. 1440
India	Visited by Cape route	Vasco da Gama, Portuguese navigator	1498
Japan	Visited	St. Francis Xavier of Spain	1549
Arabia	Explored	Niebuhr, German explorer	1762
China	Explored	Richthofen, German scientist	1868
Mongolia	Explored	Przhevalsky, Russian explorer	1870-73
Central Asia	Explored	Hedin, Swedish scientist	1890-1908

Europe

Shetland Islands	Visited	Pytheas of Massilia (Marseille)	c. 325 B.C.
North Cape	Rounded	Ottar, Norwegian explorer	c. A.D. 870
Iceland	Colonized	Norwegian noblemen	c. 890-900

North America

Greenland	Colonized	Eric the Red, Norwegian navigator	c. A.D. 985
Labrador; Nova Scotia (?)	Discovered	Leif Ericsson, Norwegian explorer	1000
West Indies	Discovered	Christopher Columbus, Italian navigator	1492
North America	Coast discovered	John Cabot, for British	1497
Pacific Ocean	Discovered	Balboa, Spanish explorer	1513
Florida	Explored	Ponce de León, Spanish explorer	1513
Mexico	Conquered	Cortez, Spanish adventurer	1519
St. Lawrence River	Discovered	Cartier, French navigator	1534
Southwest U. S.	Explored	Coronado, Spanish explorer	1540-42
Colorado River	Discovered	Alarcón, Spanish explorer	1540
Mississippi River	Discovered	Hernando de Soto, Spanish explorer	1541
Frobisher Bay	Discovered	Frobisher, English seaman	1576
Maine Coast	Explored	Champlain, French explorer	1604
Jamestown, Va.	Settled	Smith, English colonist	1607
Hudson River	Explored	Hudson, English navigator	1609
Hudson Bay (Canada)	Discovered	Hudson	1610
Baffin Bay	Discovered	Baffin, English navigator	1616
Lake Michigan	Navigated	Nicolet, French explorer	1634
Arkansas River	Discovered	Marquette and Joliet, French explorers	1673
Mississippi River	Explored	LaSalle, French explorer	1682
Bering Strait	Discovered	Bering, Danish explorer	1728
Alaskan Coast	Sighted	Gvosdeff, Russian sailor	1731
Mackenzie River (Canada)	Discovered	Mackenzie, Scottish-Canadian explorer	1789
Northwest U. S.	Explored	Lewis and Clark	1804-06
Northeast Passage (Arctic Ocean)	Navigated	Nordenskiöld, Swedish explorer	1879
Greenland	Explored	Peary, American explorer	1892
Northwest Passage	Navigated	Amundsen, Norwegian explorer	1906

South America

Country or place	Event	Explorer or discoverer	Date
Continent	Visited	Columbus, Italian navigator	1498
Brazil	Discovered	Cabral, Portuguese explorer	1500
Peru	Conquered	Pizarro, Spanish explorer	1532-33
Amazon River	Explored	Orellana, Spanish explorer	1541
Cape Horn	Discovered	Schouten, Dutch navigator	1615

Oceania

New Guinea	Visited	Menezes, Portuguese explorer	1526
Australia	Visited	Jansz, Dutch explorer	1606
Tasmania	Visited	Tasman, Dutch navigator	1642
Australia	Explored	Sturt, English explorer	1828
Australia	Explored	Burke and Wills, Australian explorers	1861

Arctic, Antarctic and Miscellaneous

Ocean exploration	Expedition	Magellan's ships circumnavigated the globe	1519-22
Spitsbergen (Arctic Europe)	Visited	Barents, Dutch navigator	1596
Antarctic Circle	Crossed	Cook, English navigator	1773
Antarctica	Discovered	Palmer, U S. explorer (archipelago) and Bellingshausen, Russian navigator (mainland)	1820-21
Antarctica	Explored	Wilkes, American explorer	1840
North Pole	Discovered	Peary, American explorer	1909
South Pole	Discovered	Amundsen, Norwegian explorer	1911

The Seven Wonders of the World

THE PYRAMIDS OF EGYPT

A group of three pyramids, *Khufu*, *Khafra* and *Menkaura* at Giza, outside modern Cairo, is often called the first wonder of the world; it is also the oldest and only surviving "wonder." The largest pyramid, built by Khufu (Cheops), had an original estimated height of 482 ft. (now approximately 450 ft.). The exact date of its construction is unknown but has been variously estimated as early as 4700 B.C. or as late as 2900 B.C.

HANGING GARDENS OF BABYLON

Often listed as the second wonder, these gardens were supposedly built by Nebuchadnezzar about 600 B.C. to please his queen, Amuhia. They are also associated with the mythical Assyrian Queen, Semiramis. Archeologists surmise that the gardens were laid out atop a vaulted building, with provisions for raising water. The terraces were said to rise from 75 to 300 ft.

The Walls of Babylon, also built by Nebuchadnezzar, are sometimes referred to as the second (or the seventh) wonder instead of the Hanging Gardens.

STATUE OF ZEUS (JUPITER)
AT OLYMPIA

The work of Phidias (5th century B.C.), this colossal figure in gold and ivory was reputedly 40 ft. high. All trace of it is lost, except for reproductions on coins.

TEMPLE OF ARTEMIS (DIANA)
AT EPHEBUS

A beautiful structure, begun about 350 B.C. in honor of a non-Hellenic goddess who later became identified with the Greek goddess of the same name. The temple, with Ionic columns 60 feet high, was destroyed by invading Goths A.D. 262.

MAUSOLEUM AT HALICARNASSUS

This famous monument was erected by Queen Artemisia in memory of her husband, King Mausolus of Caria in Asia Minor, who died in 353 B.C. Some remains of the structure are in the British Museum. This shrine is the source of the modern word "mausoleum."

COLOSSUS AT RHODES

This bronze statue of Helios (Apollo), about 105 ft. high, was the work of the sculptor Chares, who reputedly labored for 12 years before completing it in 280 B.C. It was destroyed during an earthquake in 224 B.C.

PHAROS OF ALEXANDRIA

The seventh wonder was the Pharos (lighthouse) of Alexandria, built by Sosthenes of Cnidus during the 3rd century B.C. on the island of Pharos off the coast of Egypt. It was destroyed by an earthquake in the 13th century.

Representative Mountain Peaks of the World

Mountain peak	Range	Location	Height, feet
Everest	Himalayas	Tibet-Nepal	29,141
Godwin Austen (K2)	Himalayas	India	28,250
Kanchenjunga	Himalayas	Nepal	28,140
Makalu	Himalayas	Tibet-Nepal	27,790
Dhaulagari	Himalayas	Nepal	26,795
Gurla Mandhata	Himalayas	Tibet	25,355
Tirich Mir	Hindu Kush	Pakistan	25,230
Muztagh Ata (K5)	Pamirs	Sinkiang	24,388
Muztagh	Kunlun	Sinkiang	23,890
Aconcagua	Andes	Argentina	22,835
Dos Conos	Andes	Argentina	22,507
Ojos del Salado	Andes	Argentina-Chile	22,408
Huascarán	Andes	Peru	22,205
Kailas	Himalayas	Tibet	22,028
Llullaillaco	Andes	Argentina-Chile	22,014
Mercedario	Andes	Argentina	21,883
Tupungato	Andes	Argentina-Chile	21,489
Sajama	Andes	Bolivia	21,391
Chimborazo	Andes	Ecuador	20,577
McKinley	Alaska	Alaska	20,300
Logan	St. Elias	Canada (Yukon Territory)	19,850
Kilimanjaro	.....	Tanganyika	19,565
Cotopaxi	Andes	Ecuador	19,344
Misti	Andes	Peru	19,167
Cayambe	Andes	Ecuador	19,016
Orizaba (Citlaltepetl)	Sierra Madre Oriental	Mexico	18,696
Elbrus	Caucasus	U.S.S.R.	18,468
St. Elias	St. Elias	Alaska-Canada	18,008
Vilcanota	Andes	Peru	17,998
Popocatepetl	Cordillera de Anáhuac	Mexico	17,883
Cerro de Cuz	Andes	Bolivia	17,828
Ixtaccihuatl	Cordillera de Anáhuac	Mexico	17,338
Tollma	Andes	Colombia	17,109
Dikh-Tau	Caucasus	U.S.S.R.	17,064
Kenya	.....	Kenya	17,040
Ruvenzori	Ruvenzori	Belgian Congo-Uganda	16,795
Kazbek	Caucasus	U.S.S.R.	16,545
Bona	St. Elias	Alaska	16,420
Klyuchevskaya	Kamchatka	U.S.S.R.	15,912
Savalan	Elburz	Iran	15,784
Blanc	Alps	France	15,781
Lister	.....	Antarctica	15,384
Fairweather	St. Elias	Alaska	15,287
Dashan	Simen	Ethiopia	15,158
Markham	.....	Antarctica	15,102
Matterhorn	Alps	Switzerland	14,780
Whitney	Sierra Nevada	California	14,495
Elbert	Rockies	Colorado	14,431
Massive	Rockies	Colorado	14,418
Rainier	Cascades	Washington	14,408
Longs	Rockies	Colorado	14,255
Collma	Sierra Madre Occidental	Mexico	14,239
Shasta	Sierra Nevada	California	14,161
Pikes Peak	Rockies	Colorado	14,110
Finsteraarhorn	Alps	Switzerland	14,026
Gannett Peak	Rockies	Wyoming	13,785
Mauna Loa	.....	Hawaii	13,680
Jungfrau	Alps	Switzerland	13,667
Cameroon	.....	British Cameroons	13,353
Erebus	.....	Antarctica	13,203
Robson	Rockies	British Columbia	12,972
Fujiyama (Fujisan)	.....	Japan	12,385
Cook	Southern Alps	South Island, New Zealand	12,349
Hood	Cascades	Oregon	11,245

Large Islands of the World

Island and status	Location	Area, sq. mi.
GREENLAND (Danish colony)	North Atlantic	839,782
NEW GUINEA (Under Dutch crown, west part; U. N. trust territory under Australian administration, northeast part; Australian territory, southeast part)	Southwest Pacific	312,329
BORNEO (United States of Indonesia, south part; British protectorate and colonies, north part)	South China Sea	290,012
MADAGASCAR (French overseas territory)	Off east coast of Africa	228,589
BAFFIN (Canada, Northwest Territories)	Arctic	201,600
SUMATRA (United States of Indonesia)	Indian Ocean	163,145
HONSHU (Japanese home island)	Sea of Japan—Pacific	91,278
GREAT BRITAIN (Eng., Scotland, Wales)	Off coast of northwest Europe	88,133
VICTORIA (Canada, Northwest Territories)	Arctic	80,450
ELLESMERE (Canada, Northwest Territories)	Arctic Ocean	75,024
CELEBES (United States of Indonesia)	Southwest Pacific	69,255
SOUTH ISLAND, NEW ZEALAND	South Pacific	58,093
JAVA (United States of Indonesia)	Indian Ocean	48,504
NORTH ISLAND, NEW ZEALAND	South Pacific	44,281
NEWFOUNDLAND (Canadian province)	North Atlantic	42,734
CUBA (Republic)	Caribbean Sea	42,350
LUZON	Philippine Islands	40,814
ICELAND (Republic)	North Atlantic	39,688
MINDANAO	Philippine Islands	36,906
HOKKAIDO (Japanese home island)	Sea of Japan—Pacific	34,084
IRELAND (Ireland, republic, south part; Northern Ireland, part of United Kingdom)	West of Great Britain	31,840
HISPANIOLA (Dominican Republic, east part; Haitian republic, west part)	Caribbean Sea	30,075
TASMANIA (Australian state)	South of Australia	26,215
BANKS (Canada, Northwest Territories)	Arctic	25,992
CEYLON (Member of British Commonwealth)	Indian Ocean	25,332
SAKHALIN (U.S.S.R.)	North of Japan	24,560
DEVON (Canada, Northwest Territories)	Arctic	20,484
TIERRA DEL FUEGO (East part to Argentina; west part to Chile)	Southern tip of South America	18,530
MELVILLE (Canada, Northwest Territories)	Arctic	16,164
SOUTHAMPTON (Canada, N. W. Territories)	Hudson Bay	16,114

Oceans and Seas

Name	Area, sq. mi.	Average depth, feet	Greatest known depth, ft.	Place of greatest known depth
Pacific Ocean	63,801,700	14,048	34,440	Off Mindanao
Atlantic Ocean	31,830,800	12,880	30,246	Off Puerto Rico
Indian Ocean	28,356,300	13,002	22,968	Off Sumatra-Java
Arctic Ocean	5,440,200	3,953	17,850	77° 45' N.; 175° W.
Mediterranean Sea*	1,145,100	4,688	15,564	Off Cape Matapan, Greece
Caribbean Sea	1,049,500	8,685	22,788	Off Cayman Islands
South China Sea	895,400	5,419	18,090	West of Luzon
Bering Sea	875,800	4,714	13,422	Off Buldir Island
Gulf of Mexico	618,200	4,874	12,744	Sigsbee Deep
Okhotsk Sea	589,800	2,749	11,400	146° 10' E.; 46° 50' N.
East China Sea	482,300	617	9,126	25° 16' N.; 125° E.
Hudson Bay	475,800	420	600	Near entrance
Sea of Japan	389,100	4,429	12,276	Central Basin
Andaman Sea	308,000	2,854	12,392	Off Car Nicobar Island
North Sea	222,100	308	2,165	Skagerrak
Red Sea	169,100	1,611	7,254	Off Port Sudan
Baltic Sea	163,000	180	1,380	Off Gotland

* Including Black Sea and Sea of Azov. NOTE: For Caspian Sea, see Large Lakes of World elsewhere in this section.

Famous Waterfalls of the World

Waterfall	Location	River	Height, feet
Angel	Venezuela	.....	3,300
Cuquenán, or Kukenam	Venezuela-British Guiana	Cuquenán	2,000
Sutherland	South Island, N. Z.	Arthur	1,904
Tugela	Natal, South Africa	Tugela	1,800
Ribbon (Yosemite)	California	Creek, flowing into Yosemite	1,612
Upper Yosemite	California	Yosemite Creek, tributary of Merced	1,430
Gavarnie	Southwestern France	Gavé de Pau	1,385
Takkakaw	British Columbia	Tributary of Yoho	1,200
Widow's Tears (Yosemite)	California	Tributary of Merced	1,170
Staubbach	Switzerland	Staubbach (Lauterbrunnen valley)	980
Trummelbach	Switzerland	Trummelbach (Lauterbrunnen)	950
Middle Cascade (Yosemite)	California	Yosemite Creek, tributary of Merced	910
Multnomah	Oregon	Multnomah Creek, tributary of Columbia	850
Vettisfos	Norway	Morkedöla	850
King Edward VII	British Guiana	Courantyne	840
Gersoppa	India	Sharavati	830
Kaletour	British Guiana	Pataro	741
Kalambo	Tanganyika-N. Rhodesia	.....	705
Fairy (Mt. Rainier Park)	Washington	Stevens Creek	700
Maradalsfos	Norway	Stream flowing into Efkisdalsvand (lake)	650
Skykkjefos	Norway	In Skykkjedal (valley) of Inner Hardanger Fiord	650
Terni	Italy	Velino, tributary of Nera	650
Maletsunyane (Le Bihan)	Basutoland, Africa	Maletsunyane	630
Bridal Veil (Yosemite)	California	Bridal Veil Creek, tributary of Merced	620
Nevada (Yosemite)	California	Merced	594
Voringfos	Norway	Bjoreia	536
Skjaeggedalsfos	Norway	Tyssaå	525
Marina	British Guiana	Tributary of Kuribrong, a tributary of the Pataro	500
Tequendama	Colombia	Bogotá	450
King George's	Cape Province, South Africa	Orange	450
Herval Cascades	Brazil	.....	400
Guayra	Paraguay-Brazil	Paraná	374
Illilouette (Yosemite)	California	Illilouette Creek, tributary of Merced	370
Granite (Mt. Rainier Park)	Washington	Granite Creek	350
Splendor of Sun	Nikko, Japan	.....	350
Victoria	Southern Rhodesia	Zambezi	343
Comet (Mt. Rainier Park)	Washington	Van Trump Creek	320
Lower Yosemite	California	Yosemite Creek	320
Vernal (Yosemite)	California	Merced	317
Virginia	Northwest Territories, Canada	South Nahanni, tributary of Mackenzie	315
Lower Yellowstone	Wyoming	Yellowstone	308
Grand	Labrador, Canada	Hamilton	302
Sluisin (Mt. Rainier Park)	Washington	Paradise	300
Snoqualmie	Washington	Snoqualmie	270
Seven Falls	Colorado	.....	266
Tallulah	Georgia	Tallulah	251
Shoshone	Idaho	Snake	195
Narada (Mt. Rainier Park)	Washington	Paradise	188
Niagara	New York-Ontario	Niagara	167
Tower (Yellowstone)	Wyoming	Tower Creek, tributary of Yellowstone	132

PRINCIPAL DESERTS OF THE WORLD

Desert	Location	Approximate size	Approximate elevation, ft.	Features
Atacama.....	North Chile.....	400 mi. long.....	7,000-13,500.....	Rugged. Rich in minerals, particularly nitrates.
Black Rock.....	Northwest Nevada.....	70 mi. long and in places 20 mi. wide, or about 1,000 sq. mi.	2,000-5,000.....	Usually dry, with a white alkali crust. Serves as "sink" of the Quinn River and at times covered with water a few inches deep.
Colorado.....	Southeast California from San Geronio Pass to Gulf of California.....	200 mi. long and a maximum width of 50 mi.	Few feet above to about 250 below sea level.....	Average 90° F. Has reached 125° F. in the shade. Contains Salton Sea (overflow of Colorado).
Dash-i-Kavir.....	Southeast of Caspian Sea in Iran.....	800 by 400 mi., or at least 300,000 sq. mi.	1,000.....	A salt depression. Vast deposits of solid rock salt.
Dash-i-Lut.....	Northeast of Kerman in Iran.....	1,500 mi. long.....	3,000-5,000.....	Sand desert.
Gobi (Shamo or "Desert of Sand").....	Covers most of Mongolia.....	400 mi. long and average of 200 mi. wide.....	1,850.....	Sandy soils with much alkali. Some well-watered areas. Several caravan routes. Fossil remains.
Great Arabian.....	Most of Arabia.....	400 by 30 mi.....	3,000.....	Series of arid plateaus with scattered oases.
Syrian (El Hamad).....	North of 30° N. Latitude.....	About one-half the continent.....	.....	Stony with numerous wadis (dry stream beds).
Nefud (Red Desert).....	South of Jaufr.....	80 by 50 mi.....	600-1,000.....	Almost waterless but rich in pasture in the rainy season (winter and spring). Large sand dunes.
Dahna.....	Southeast of Nefud.....	400 by 600 mi., or about 120,000 sq. mi.....	4,500.....	Waterless but rich in pasture in winter and spring.
Rub' al Khali.....	South portion of Nejd.....	110,000 sq. mi.....	.....	Areas of "fixed dunes" and stony ("gibbers") wastes.
Great Australian.....	Western portion of Australia.....	80 by 50 mi.....	Over 3,000.....	Salt desert with numerous salt flats. Some used in setting world automobile speed records.
(Includes: Great Sandy; Gibson; Great Victoria; Arunta.)	West of Great Salt Lake to Nevada-Utah line.....	400 by 600 mi., or about 120,000 sq. mi.....	.....	Mild climate. Red sand. Some vegetation and game.
Great Salt Lake.....	Southwest Turkistan south of Lake Ara.....	370 by 220 mi., or about 70,000 sq. mi.....	.....	Flat sandy wastes interspersed with broad expanses of clay soil. Water found only in wells.
Kalahari.....	Central Turkistan southeast of Lake Aral.....	15,000 sq. mi.....	160 near Lake Aral to 2,000 in southeast.....	Arid grazing land. Numerous sand dunes moving southward.
Kara Kum (Desert of Khiva or "Black Sands").....	North of Colorado Desert and south of Death Valley in southeast California.....	75 mi. wide.....	High plateau 5,000.....	Temperature range 70°-125° F. during summer months. Hot dry alkali flats interspersed with salt-pans or lakes. Scanty vegetation.
Kizil Kum.....	Northeast Arizona.....	3,200 mi. greatest length along 20° N. Lat.; width varies from 800 to 1,400 mi. Area over 3,500,000 sq. mi.	440 below sea level to 11,000 above with an average elevation of 1,400-1,600.....	Mild climate. Named for its bright colorful rocks. Varied surface. East Libyan desert is sand; central part contains rocky hills and mountains; west consists of low stony plains and dunes. Crossed by chain of oases. Well-marked caravan routes.
Mohave.....	East portion of the Sahara west of Nile.....	More than 500,000 sq. mi.....	2,500.....	Series of deep depressions, some below sea level. Famous caravan routes through oases such as Kharga, Dakhla, Farafra, Bahariya, Siwa and Cufra.
Painted Desert.....	From Red Sea to great west bend of the Nile.....	700 mi. long.....	.....	Sand and rock desert with some small fertile oases.
Sahara.....	S. Central Sinkiang in Tarim Basin.....	About 300 mi. by 380 mi.....	About 500.....	Extremes of climate: -22°-86° F. In April, Uninhabited. Can be safely crossed only in winter. Marco Polo left a vivid description of this desert.
Libyan.....	Chiefly Rajputana, India.....	.....	.....	Sandy with strips of cultivable land.
Nubian.....	.....	.....	.....	.....
Takla Makan.....	.....	.....	.....	.....
Thar (Indian).....	.....	.....	.....	.....

Principal Rivers of the World

River	Source	Outflow	Approx. length, miles
Nile	Lake Victoria	Mediterranean Sea	4,000
Missouri-Mississippi	Source of Red Rock Creek, Montana	Gulf of Mexico	3,988
Amazon	Glacier-fed lakes, Peru	Atlantic Ocean	3,900
Ob	Altai Mts., U.S.S.R.	Gulf of Ob	3,200
Yangtze Kiang	Tibetan plateau	China Sea	3,100
Amur	Confluence of Shilka (U.S.S.R.) and Argun (Manchuria) Rivers	Tartary Strait	2,900
Congo	Between Lakes Nyasa and Tanganyika	Atlantic Ocean	2,900
Lena	Baikal Mts., U.S.S.R.	Arctic Ocean	2,800
Yenisei	Tannu Ola Mountains, western Mongolia	Arctic Ocean	2,800
Hwang Ho (Yellow)	East part of Kunkun Mts., west China	Gulf of Chihli	2,700
Niger	Border of Sierra Leone	Gulf of Guinea	2,600
Mackenzie	Head of Finlay River, British Columbia	Beaufort Sea (Arctic Ocean)	2,514
Mékong	Tibetan highlands	South China Sea	2,500
Missouri	Actual headwaters Red Rock Creek; beginning of Missouri at confluence of Gallatin, Madison, Jefferson Rivers	Mississippi River	2,475 (confluence) 2,723 (headwaters)
Mississippi	Lake Itasca, Minnesota	Gulf of Mexico	2,470
Paraná	Confluence of Paranaíba and Grande Rivers, southeast Brazil	Río de la Plata (Atlantic Ocean)	2,450
Murray	Australian Alps, New South Wales	Indian (Southern) Ocean	2,310
Irish	Altai Mts., U.S.S.R.	Ob River	2,300
Volga	Valdai plateau, U.S.S.R.	Caspian Sea	2,300
Madeira	Confluence of Gauporé and Maumoré Rivers, Bolivia-Brazil border	Amazon River	2,000
St. Lawrence	St. Louis River, Minn.	Gulf of St. Lawrence	1,900
Purús	Southwest Amazonas, Brazil	Amazon River	1,850
Rio Grande	San Juan Mts., Colorado	Gulf of Mexico	1,800
São Francisco	Southwest Minas Geraes, Brazil	Atlantic Ocean	1,800
Yukon	Junction of Lewes and Pelly, Yukon Territory	Bering Sea	1,800
Salween	Tibet, south of Kunkun Mountains	Gulf of Martaban	1,750
Danube	Black Forest, Germany	Black Sea	1,725
Euphrates	Dumluu Dag (mountains), Turkey	Persian Gulf	1,700
Indus	Himalayas	Arabian Sea	1,700
Orinoco	Sierra Parima on Venezuela-Brazil boundary	Atlantic Ocean	1,700
Tocantins	Near Fyrenopolis, southeast Brazil	Pará River (Atlantic Ocean)	1,700
Brahmaputra	Himalayas	Ganges River (Bay of Bengal)	1,680
Nelson	Head of Bow River, west Alberta, Canada	Hudson Bay	1,660
Si Kiang	Plateau of Yunnan, southwest China	China Sea	1,650
Zambezi	11°21'S.; 24°22'E., Northern Rhodesia, Africa	Indian Ocean	1,600
Ganges	Himalayas	Bay of Bengal	1,540
Amu Darya (Oxus)	Nicholas Range, Pamir Mountains, U.S.S.R.	Lake Aral	1,500

River	Source	Outflow	Approx. length, miles
Paraguay	Mato Grosso, Brazil	Paraná River	1,500
Yapurá	Andes, Colombia	Amazon River	1,500
Arkansas	Central Colorado	Mississippi River	1,450
Colorado	Middle Park, northern Colorado	Gulf of California	1,440
Dnieper	Valdai Hills, U.S.S.R.	Black Sea	1,400
Negro	Watershed between Orinoco and Amazon	Amazon River	1,400
Ural	Southern Ural Mountains, U.S.S.R.	Caspian Sea	1,400
Ohio-Allegheny	Plateau in Potter County, Pa.	Mississippi River	1,306
Orange	Basutoland, Africa	Atlantic Ocean	1,300
Irrawaddy	Confluence of N'mal and Mali Rivers, northeast Burma	Bay of Bengal	1,250
Columbia	Columbia Lake, British Columbia	Pacific Ocean	1,214
Saskatchewan	Western Alberta, Canada	Lake Winnipeg	1,205
Darling	Central part of Eastern Highlands, Australia	Murray River	1,160
Tigris	Taurus Mts., Turkey	Euphrates River (Persian Gulf)	1,150
Sungari	Sungari Reservoir, Manchuria, China	Amur River	1,130
Don	Lake Ivan, U.S.S.R.	Sea of Azov	1,100

Large Lakes of the World

Name and location	Area, sq. mi.	Length, miles	Maximum depth, feet	Elevation above sea level, feet
Caspian, U.S.S.R.-Iran†	169,300	795	3,612	-86
Superior, U. S. A.-Canada	31,820	383	1,290	602
Aral, U.S.S.R.	26,233	280	222	165
Victoria, East Central Africa	26,200	250	270	3,720
Huron, U. S. A.-Canada	23,010	247	750	580
Michigan, U. S. A.	22,400	321	923	580
Baikal, U.S.S.R.	18,300	411	5,413	1,515
Tanganyika, East Central Africa	12,700	450	4,708	2,536
Great Bear, Canada	12,000	195	270*	391
Great Slave, Canada	11,170	325	—	495
Nyasa, Southern Africa	11,000	350	2,580	1,650
Erie, U. S. A.-Canada	9,940	241	210	572
Winnipeg, Canada	9,398	260	70	712
Ontario, U. S. A.-Canada	7,540	193	778	245
Balkhash, U.S.S.R.	7,115	430	36	900
Ladoga, U.S.S.R.	7,000	125	730	55
Onega, U.S.S.R.	3,764	145	408	125
Rudolf, Eastern Africa	3,475	185	—	1,250
Titicaca, Bolivia-Peru	3,200	125	892	12,507
Nicaragua, Nicaragua	3,089	110	200	136
Athabaska, Canada	3,058	195	—	699
Reindeer, Canada	2,444	155	—	1,150
Issyk-Kul, U.S.S.R.	2,230	115	2,300	5,400
Koko Nor, China	2,200	66	—	10,000
Vänern, Sweden	2,143	87	292	144
Winnipegosis, Canada	2,086	122	38	831
Bangweulu, East Central Africa	1,900	60	15	3,700
Nipigon, Canada	1,870	70	—	853
Manitoba, Canada	1,817	120	12*	813
Urmia, Iran	1,750*	80-90	50	4,184
Albert, Uganda, Africa	1,640	100	50	2,037
Dubawnt, Canada	1,600	65	—	500
Great Salt, U. S. A.	1,500	75	15-25*	4,200
Van, Turkey	1,453	80	—	5,643

* Average. † The name Caspian Sea is a misnomer; it is a land-locked lake, so classified by oceanographers.

Volcanoes of the Earth

There are approximately 430 volcanoes (275 in the Northern Hemisphere and 155 in the Southern) with recorded eruptions in historical times. Of the 2,500 recorded eruptions, more than 2,000 have taken place in the Pacific area. Of known active volcanoes, 80 are of the submarine type.

ATLANTIC-INDIAN AREA

Mediterranean Region

Italy: Mt. Vesuvius, southeast of Naples (3,858 ft.). Only active volcano on mainland of Europe. Pompeii buried by an eruption, A.D. 79. Latest eruption in 1944.

Sicily: Mt. Etna, eastern Sicily (10,741 ft.). Two new craters formed in eruptions of Feb.-Mar., 1947. Worst eruption in 50 years occurred Nov., 1950-Jan., 1951.

Lipari Islands (north of Sicily): Stromboli (about 3,000 ft.). Called "Lighthouse of the Mediterranean." Erupted 1951.

Atlantic Area

Canary Islands: Pico de Teide (Tenerife), on island of Tenerife (12,192 ft.).

Cape Verde Islands: Fogo (over 8,000 ft.). Severe eruption in 1857; last until 1951.

Iceland: At least 25 volcanoes active in historic times. Has exceeded all other volcanic areas in output of lava. These volcanoes very similar to those in Hawaii.

Hekla (4,747 ft.). Several craters, largest about $1\frac{1}{4}$ mi. in circumference. Most recent eruptions reported in 1947-48.

Skaptarjökull. Series of volcanoes near Skaptar; erupted in 1783 with large loss of life.

Askja (4,600 ft.). Largest in Iceland.

Jan Mayen Island: Beerenberg, northern part of island (over 8,000 ft.). Extinct.

British Cameroons: Mt. Cameroon (13,353 ft.). Has several craters. Last erupted in 1922.

Lesser Antilles (West Indian Islands): Mt. Pelée, in northwestern Martinique (about 4,400 ft.). Eruption in 1902 destroyed town of St. Pierre and killed approximately 40,000.

Indian Ocean Region

Comoro Islands (east of northern Mozambique): One volcano, Kartala (over 8,500 ft.). Visible for over 100 miles. Last erupted in 1904.

Réunion Island (east of Madagascar): Piton de la Fournaise (Le Volcan) (8,610 ft.). Large lava flows.

Tanganyika Territory: Killimanjaro (19,565 ft.). Extinct. Highest mountain in Africa.

THE PACIFIC AREA

Northwest Portion

Kamchatka: 14-18 active volcanoes.

Shiveluch (over 10,500 ft.). Most northerly volcano of Kamchatka group.

Klyuchevskaya (Kluchev) (15,912 ft.). Reported active in 1946.

Koryatskaya (over 11,500 ft.). Violent eruption in 1895.

Kurile Islands: At least 13 active volcanoes and several submarine outbreaks.

Japan: at least 33 active vents.

Fujiyama (Fujisan), southwest of Tokyo (12,385 ft.). Symmetrical in outline, snow-covered. Regarded as a sacred mountain. Adzumayama (7,733 ft.). Eruption in 1900 killed 82.

Asamayama (8,182 ft.). Continuously active; violent eruption in 1783; latest in 1950.

Asosan (5,223 ft.). Crater 10 by 15 miles is the largest known in the world; erupted most recently in 1949.

Bandaisan, about 125 miles north of Tokyo (9,037 ft.). Violent eruption in 1888 devastated a 27-square-mile area.

Ryukyu archipelago: Nakano-shima (3,485 ft.); Suwanose-shima (2,697 ft.).

Bonin (Ogasawara) Islands: Mt. Suribachi, on Iwo Jima (546 ft.). A sulfurous steaming volcano. Raising of U. S. flag over Mt. Suribachi was one of the dramatic episodes of World War II.

New Britain archipelago: Numerous active vents, including Father, on New Britain (7,500 ft.).

Santa Cruz Islands: Tinakula (2,200 ft.).

New Hebrides: Lopevi (4,755 ft.).

Samoa archipelago: Savaii. An eruption in 1905 did considerable damage. Niuafu (Tin Can) between Samoa and Fiji Islands has a crater 6,000 feet below and 600 feet above water. Active in 1946.

Philippine Islands: about 100 eruptive centers; Hibok Hibok on Camiguin island erupted in Sept. 1950, and again in Dec. 1951, when about 750 were reported killed or missing; eruptions continued in 1952.

Undersea volcano 38 mi. north of Luzon erupted in 1952 and rose 250 ft. above surface.

Taal, on Volcano Island in Lake Bombon (about 1,000 ft.). Crater over 7,500 ft. in diameter.

Mayon, in southeastern Luzon (7,946 ft.). An almost perfect cone. Continuous mild activity. Destructive eruption in 1897.

Moluccas: A volcanic chain of islands which contains several active volcanoes.

Hawaitan Group:

Mauna Loa (13,680 ft.). Also called "Long Mountain." Discharges more lava than any other volcano. Largest volcanic mountain in the world in cubic content, with crater of 3.7 sq. mi. Violent eruption in June, 1950, with lava pouring 25 mi. into the ocean.

Mauna Kea (13,784 ft.). Highest mountain in group.

Hualalal (8,269 ft.). Has many small pit craters. Only lava flow in historic times was in 1801.

Kilauea (4,090 ft.). A vent in side of Mauna Loa but apparently erupts independently of it. One of the most spectacular and active craters. Crater has an area of 4.14 sq. mi. Erupted 1952.

Southwest Portion

Sumatra: Ninety volcanoes have been discovered; 12 are now active. The most famous, Krakatoa, is a small volcanic island in the Sunda Strait. Numerous volcanic discharges occurred in 1883. One explosion caused the disappearance of the highest peak and the northern part of the island. Fine dust was carried around the world in the upper atmosphere. Over 36,000 persons lost their lives in resultant tidal waves, which were felt as far away as Cape Horn. Active again in 1928 and July, 1950.

Java: Thirteen of 125 volcanic centers are active. Few serious eruptions. Galunggung is famous for two destructive eruptions in 1822. It is thought that over 100 villages and about 4,000 lives were lost.

Lesser Sunda Islands: Fifteen eruptive cones. Tamboro on Soembawa (Sumbawa) (about 9,000 ft.) was 13,000 ft. prior to a severe eruption in 1815, which ejected an estimated 36 cu. mi. of material.

Melanesian area: Volcanoes are located on New Guinea, New Hebrides, Santa Cruz, Solomons, and on numerous other small islands. Eruption of Mt. Lamington in Papua Territory, New Guinea, in Jan., 1951, killed more than 3,000.

New Zealand: Tarawera, on North Island. Severe eruption in 1886 destroyed the famous pink and white sinter terraces of Rotomahana, a hot lake.

Ngauruhoe (7,515 ft.). Emits steam and vapor incessantly.

Northeast Portion

Aleutian area: There are 32 active vents known, and numerous inactive cones in remarkably straight line.

Shisaldin, on Unimak (8,683 ft.). Latest eruption Jan., 1947.

Bogosloff, on Bogosloff island (Castle) (about 1,000 ft.). Mountain first appeared after an eruption in 1796.

Alaska:

Wrangell (14,005 ft.).

Katmai (about 7,500 ft.). On June 6, 1912, a violent eruption occurred, during which the "Valley of Ten Thousand Smokes" was formed. Erupted 1951.

United States: Lassen Peak, in California (10,453 ft.). Only observed active volcano in the United States. Last period of activity in 1914-17. Other mountains of volcanic origin include Mt. Shasta, Mt. Hood,

Mt. Rainier, and the mountain that contains Crater Lake.

Mexico:

Popocatepetl (17,883 ft.). Crater 673 ft. deep and $2\frac{1}{2}$ mi. in circumference. Not entirely extinct; steam still escapes.

Collima (14,239 ft.), in group that has had frequent eruptions.

Orizaba (Citlaltepetl) (18,696 ft.). Probably the most symmetrical volcanic cone.

Tuxtla (4,900 ft.). Had a violent eruption in 1793 but is now quiescent.

Parícutín. A new volcano. First appeared in Feb., 1943. In less than a week a cone over 140 ft. high developed with a crater one quarter mile in circumference. Cone grew over 1,500 ft. in 1943. Erupted 1952.

Guatemala:

Santa María Quezaltenango (12,361 ft.). Frequent activity between 1902-08 and 1922-28 after centuries of quiescence. Most dangerously active vent of Central America. Other volcanoes include Tajumulco (13,814 ft.) and Atitlán (11,633 ft.).

El Salvador: Izalco, "beacon of Central America," which first appeared in 1770 and is still growing (erupted in July, 1950); San Salvador, which had a violent eruption in 1923 and Conchagua, which erupted with considerable damage early in 1947.

Nicaragua: Volcanoes include Telica (latest eruption in 1950), Coseguina, and Momotombo (4,126 ft.). Between Momotombo on the western shore of Lake Managua and Coseguina overlooking the Gulf of Fonseca, there is a string of more than 20 cones, many still active. One of these, Cerro Negro, erupted in July, 1947, with considerable damage and loss of life, and again in 1948-50.

Costa Rica: Four volcanic cones whose bases merge are Poás (8,895 ft.), Barba (9,280 ft.), Irazú (10,525 ft.), and Turrialba (11,350 ft.).

Southeast Portion

Colombia: Huila (18,700 ft.), a vapor-emitting volcano, and Tolima (17,109 ft.).

Eruption of Puracé (15,420 ft.), 1949, killed 17.

Ecuador: Cotopaxi (19,344 ft.). Perhaps highest active volcano in the world. Possesses a beautifully formed cone.

Cayambe (19,016 ft.). Almost on equator.

Other volcanoes include Tunguragua (16,689 ft.), Sangay (17,470 ft.), and Antisana (over 18,000 ft.).

Peru and Bolivia: Many active volcanoes. Misti, near Arequipa, Peru (19,167 ft.). Sajama, in Bolivia (21,391 ft.).

Licancábur, in Bolivia (about 19,500 ft.).

Chile and Argentina: About 25 active or potentially active; destructive eruption of Villarica, Chile, 1948; active in 1949.

Interesting Caves and Caverns of the World

Aggtelek. In village of same name, northern Hungary. Large stalactitic cavern about 5 miles long.

Altamira Cave. Near Santander, Spain. Contains animal paintings (Old Stone Age art) on roof and walls.

Antiparos. On island of same name in the Grecian Archipelago. Some stalactites are 20 ft. long. Brilliant colors and fantastic shapes.

Blue Grotto. On island of Capri, Italy. Cavern hollowed out in limestone by constant wave action. Now half filled with water because of sinking coast. Name derived from unusual blue light permeating the cave. Source of light is a submerged opening, light passing through the water.

Carlsbad Caverns. Southeast New Mexico. Largest underground labyrinth yet discovered. Three levels: 754; 900, and 1,320 feet below the surface.

Fingal's Cave. On island of Staffa off coast of western Scotland. Penetrates about 200 ft. inland. Contains basaltic columns almost 40 ft. high.

Ice Cave. Near Dobšina, Czechoslovakia. Noted for its beautiful crystal effects.

Jenolan Caves. In Blue Mountain plateau, New South Wales, Australia. Beautiful stalactitic formations.

Kent's Cavern. Near Torquay, England. Source of much information on Paleolithic man.

Luray Cavern. Near Luray, Virginia. Has large stalactitic and stalagmitic columns of many colors.

Mammoth Cave. Limestone cavern in central Kentucky. Cave area is about 10 miles in diameter but has at least 150 miles of irregular subterranean passageways at various levels. Temperature remains fairly constant at 54°F.

Peak Cavern or Devil's Hole. Derbyshire, England. About 2,250 ft. into a mountain. Lowest part is about 600 ft. below the surface.

Postumia (Adelsberg) Grotto. Near Postumia in Julian Alps, about 25 miles N.E. of Trieste. Stalactitic cavern, largest in Europe. *Piuca* (Pivka) River flows through part of it. Caves have numerous beautiful stalactites.

Singing Cave. Iceland. A lava cave; name derived from echoes of people singing in it.

Wind Cave. In Black Hills of South Dakota. Limestone caverns with stalactites and stalagmites almost entirely missing. Variety of crystal formations called "boxwork."

Wyandotte Cave. In Crawford County, southern Indiana. A limestone cavern with five levels of passages; one of the largest in North America. "Monumental Mountain," approximately 135 ft. high, is believed to be one of the world's largest underground "mountains."

Geysers

Geysers exist in many volcanic regions of the world such as Japan and South America, but their greatest development is in Iceland, New Zealand and Yellowstone National Park, Wyoming, U. S. A.

Iceland. The principal geyser area is about 30 miles northwest of Mt. Hekla, where there are more than 100 geysers and hot springs in about two square miles. The main ones are the following:

Great Geyser (Geysir). Sends up a column 160 to 180 ft. high intermittently from an opening more than 9 ft. across and about 70 ft. deep.

Strokkur (Churn). Constant bubbling and occasional eruptions.

New Zealand. There is a great profusion of boiling springs, steam jets and mud volcanoes northeast of Lake Taupo on North Island. Main geysers are *Waikite*, with a 30-35 ft. column, *Pohutu* and *Waimauku*.

United States

Yellowstone National Park, Wyoming. There are 120 named geysers in Yellowstone and perhaps half that number un-

named. Most of the geysers and the 4,000 hot springs are located in the western portion of the park. The most important:

Norris Geyser Basin has 18 or more geysers; the number varies. There are scores of steam vents and hot springs. *Valentine*, highest in basin, 75 ft. at 18-hour intervals; tube is 60 ft. long. *Minuté*, 15-20 ft. high, several hours apart. Others are small; these include *Steamboat*, *Fearless*, *Veteran*, *Vixen*, *Corporal* and *Monarch*. Some are dormant.

Lower Geyser Basin. In the 1870's it had 680 hot springs and geysers. Many now are only hot springs, but at least 18 are active geysers. *Fountain*, at one time very well known. Water thrown 75 ft. in all directions and at all angles. Now dormant. *Clepsydra*, very active; some eruption cycles last for several hours; maximum height 75 ft. *Great Fountain* plays every 12 to 13 hours for 30 minutes in spurts which rise from 60 to 80 ft.

Midway Geyser Basin has vast steaming terraces of red, orange, pink and other colors; pools and springs. *Excelsior* Geyser crater discharges boiling water into Fire-hole River, 6 cu. ft. per second.

Upper Geyser Basin includes: *Artemisia* sends up a column 35 ft. high for 10 to 15 minutes every 18 to 24 hours. *Fan* sends out fan-shaped eruptions about 60 ft. high every 2 or 3 days. *Riverside* has an unusual cone; throws water 75 ft. obliquely over the river from lower crater for half an hour. It has a remarkably regular interval of 8 hours between eruptions.

Rocket jets up to 70 ft. at intervals of 2 to 5 days. When its neighbor, *Grotto*, erupts simultaneously the jet is only 10 ft.

Grotto throws water 20 to 30 ft. for 15 minutes to 8 hours.

Giant erupts to 200 ft. Eruptions last an hour but are 7 days to 3 months apart. A single eruption has been estimated to contain 700,000 gallons.

Daisy sends water to a height of 75 ft. every 135 minutes.

Old Faithful sends up a column about 140 ft. high at average intervals of 65 minutes, varying from 35 to 80 minutes. Eruption lasts about 4 minutes. Discharges about 12,000 gallons at each eruption.

Giantess erupts like a small volcano

every six to nine months. The eruption rises to a maximum height of 200 ft. and usually lasts $4\frac{1}{2}$ hours.

Lion group: *Lion*, *Lioness*, *Big Cub* and *Little Cub* erupt irregularly from one to 18 times a day.

Castle is reported to have largest and most imposing cone of any active geyser in the world. Erupts twice a day to a height of 75 ft. but at times throws water continually to about 20 ft.

Mammoth Hot Springs. There are no geysers in this area. The formation is travertine. Sides of a hill are steps and terraces over which flow the steaming waters of hot springs laden with minerals. Each step is tinted by algae to many shades of scarlet, orange, pink, yellow and blue. Terraces are white where no water flows.

Other groups of geysers, hot pools and mud pots are located on the west shore of Shoshone Lake, on West Thumb Bay, at Mud Volcano, in the Grand Canyon of the Yellowstone, and on Mirror Plateau.

Bell Time on Shipboard

A.M.			P.M.		
12:30—1 Bell	4:30—1 Bell	8:30—1 Bell	12:30—1 Bell	4:30—1 Bell	8:30—1 Bell
1:00—2 Bells	5:00—2 Bells	9:00—2 Bells	1:00—2 Bells	5:00—2 Bells	9:00—2 Bells
1:30—3 "	5:30—3 "	9:30—3 "	1:30—3 "	5:30—3 "	9:30—3 "
2:00—4 "	6:00—4 "	10:00—4 "	2:00—4 "	6:00—4 "	10:00—4 "
2:30—5 "	6:30—5 "	10:30—5 "	2:30—5 "	6:30—5 "	10:30—5 "
3:00—6 "	7:00—6 "	11:00—6 "	3:00—6 "	7:00—6 "	11:00—6 "
3:30—7 "	7:30—7 "	11:30—7 "	3:30—7 "	7:30—7 "	11:30—7 "
4:00—8 "	8:00—8 "	noon—8 "	4:00—8 "	8:00—8 "	12:00—8 "

World Extremes of Climate

Highest recorded shade temperature:

World: 136° F. at Azizia, Libya, North Africa, September 13, 1922.

United States: 134° F. at Death Valley, California, July 10, 1913.

Lowest recorded temperature:

World: —90° F. at Verkhoyansk, Siberia, U.S.S.R., February 5 and 7, 1892; a temperature of —94° F. was reported in Siberia during the winter of 1946-47 but was not verified by the Soviet government.

United States: —66° F. at Yellowstone Park, Montana, February 9, 1933.

Highest mean annual temperature:

World: 86° F. at Massawa, Eritrea, Africa.

United States: 77.3° F. at Tavernier, Fla.

Maximum rainfall for 24-hour period:

World: 46 inches at Baguio, Luzon, Philippines, July 14-15, 1911.

United States: 26.12 inches at Hoeges Camp (Camp Le Roy), California, January 22-23, 1943.

Maximum recorded rainfall in one month:

366 inches at Cherrapunji, India, July, 1861 (over 150 inches fell in 5 consecutive days in August, 1841). Average annual rainfall at Cherrapunji is 424 inches. The 28-year average annual rainfall at Mt. Waialeale, Island of Kauai, Hawaiian Islands, however, is 489 inches.

Minimum recorded rainfall:

World: .04 inch at Iquique, Chile, average yearly fall during 40 years.

United States: 1.73 inches at Greenland Ranch, California, average yearly fall during 38 years. During one period of 401 consecutive days, this station recorded no rain.

Average annual precipitation for the United States is about 29 inches.

Louisiana is the wettest state, with an annual average (61 years) of 56.53 inches.

Nevada is the driest state, with an annual average (63 years) of 8.93 inches. Highest local average annual rainfall in the United States was 150.73 inches at Wynoochee Oxbow, Washington, based on a 13-year record. Greatest 6-hour fall was at Lake Charles, La., 15.38 inches, on June 19, 1947. Greatest 24-hour U. S. rain (unofficially observed) was 38.2 inches, Thrall, Tex., Sept. 9-10, 1921. Heavy snowfall records include 60 inches in one day at Giant Forest, California; 87 inches in 27½ hours and 96 inches in 32½ hours at Silver Lake, Colorado; and 42 inches in 2 days at Angola, New York. In the New York City blizzard of Dec. 26, 1947, 25.8 inches of snow fell in about 20 hours, almost 5 inches more than fell in the blizzard of March, 1888. Greatest seasonal snowfall was 884 inches, over 73 feet, at Tamarack, California, during 1906-07. Large hailstones include one 17 inches in circumference and weighing 1½ pounds which fell at Potter, Nebraska, July 6, 1928.

Ancient Empires

The *Egyptian* and *Babylonian* empires, Near Eastern civilizations whose cultures mark the beginning of written history, had their origins in the nebulous period of ancient history prior to the year 4000 B.C. They developed rapidly in the fertile river valleys of the Nile in Egypt and the Tigris-Euphrates in Mesopotamia after the discovery of metals and the invention of writing. Their governments were all-powerful, with the people subjugated and without political rights. The Egyptians regarded their king as a god. In Babylon, the ruler was a priest-king, earthly representative of the gods. Nevertheless, these Near East cultures made great contributions to the eternal march of man; they advanced the ways of making and doing things, produced the earliest literature, developed the principles of law (the code of Hammurabi, Babylonian king of the 18th [or possibly 17th] century B.C., the oldest code of law) and science, learned the basic principles of art, and evolved early religious worship.

The influence of Babylon and Egypt was felt in the rise of the Semitic tribes of Syria, the Hittites in Asia Minor, and the people of the Aegean region. Between the years 1200 and 800 B.C., the small Syrian states grew to great power and then were overwhelmed by the great empire of the *Assyrians*, the warlike peasants of the Tigris valley, who took the lessons learned from the Babylonians and spread that culture over their domains. The Assyrians, like the Egyptians and the Babylonians, in turn fell under the power of the *Persian* kings in the century between 600 and 500 B.C. By 525 B.C., the Persian Empire extended from India to Egypt, the greatest the world had ever seen.

The lessons learned by these early Near Eastern civilizations were transmitted to *Greece*, which developed its illustrious empire in the Aegean region, after the inhabitants of the island of Crete had absorbed the Egyptian culture. The mainland Greeks overthrew the Cretans and in turn were succeeded by the Doric Greeks, who spread their culture across the Aegean, the Asia Minor coast, and into the Mediterranean and Black Sea regions. The char-

acteristic Greek political institution was the city-state, first ruled by kings and often temporary monarchical tyrannies, and finally by the participation of free citizens. Literature and the arts flourished, and by the 5th century B.C., when Athens became the great city of the Greeks, drama had risen to full maturity with the great tragedies of Sophocles and Euripides and the comedies of Aristophanes. Architecture and art advanced apace. The Greeks, learning much from their Egyptian teachers, produced such superb buildings as the Parthenon and created amazingly beautiful statues through the use of living models. Religion, which was closely linked with art, also flourished, as did the development of philosophy, under the great Socrates (470?-399 B.C.), Plato (427?-347 B.C.), and Aristotle (384-322 B.C.). Wars weakened the city-states, and they fell to Alexander the Great in the 4th century B.C.

Last among the great ancient empires was the *Roman*, which developed in Italy and gained control over the Mediterranean region after absorbing the culture of Greece and combining with it new principles of law and art and teaching their new learning to the West. The development of the Roman civilization began in 510 or 509 B.C., when the peoples on the peninsula of Italy freed themselves from the rule of the Etruscans. The Romans, with a republican form of government, speedily conquered Italy and the Mediterranean region, and the Roman governors became men of great wealth, corrupting the city-state system and making it a graft-ridden machine of exploitation. The failure of the government to check this self-seeking influence brought on a revolt which resulted eventually in the rise of Julius Caesar to dictatorship in 46-44 B.C. Caesar's murder in the Senate at Rome was followed in 27 B.C. by the establishment of the one-man rule of Augustus over the Roman Empire. Legal practices were developed and became the foundations of modern law. Great roads, bridges and buildings were constructed. This great ancient civilization began to crumble in the 3d century A.D.

Languages of the World

(spoken by 5,000,000 or more people)

Language	Number speaking	Language	Number speaking
American Indian: including Mayan, Quéchuá and 750-1,000 other languages and dialects	15,000,000	Bisayan, Ilocano, Javanese, Malay, Malagasy, Sundanese, Tagalog	80,000,000
Amharic (Ethiopia)	5,600,000	Iranian: including Baluchi, Kurdish, Persian, Pushtu	26,500,000
Annamese (Indo-China)	20,000,000	Italian	50,000,000
Arabic	58,000,000	Japanese	80,000,000
Bantu: including Swahili, Zulu (S. Africa)	45,000,000	Javanese	32,000,000
Bengali (India; Pakistan)	63,000,000	Kanarese (India)	13,400,000
Berber dialects (N. Africa)	6,000,000	Korean	27,000,000
Bihari (India)	28,000,000	Lahnda (India; Pakistan)	10,000,000
Bisayan (Philippines)	5,500,000	Malay (Indonesia)	10,000,000
Bulgarian	7,000,000	Malayalam (India)	10,000,000
Burmese	11,000,000	Marathi (India)	23,000,000
Catalan (Spain)	6,000,000	Munda (India)	5,000,000
Chinese: including Mandarin, Cantonese and others	450,000,000	Oriya (India)	9,600,000
Cushitic: including Somali (Ethiopia)	7,000,000	Persian	12,000,000
Czech	8,000,000	Polish	30,000,000
Dravidian: including Kanarese, Malayalam, Tamil, Telugu (India)	80,000,000	Portuguese	60,000,000
Dutch	10,000,000	Punjabi (India; Pakistan)	18,800,000
English	250,000,000	Pushtu (Afghanistan; Pakistan)	8,000,000
Ethiopian: including Amharic	6,400,000	Rajasthani (India; Pakistan)	15,225,000
Finno-Ugric: including Estonian, Finnish, Hungarian, Karelian, Lappish	21,500,000	Rumanian	16,000,000
Flemish (Belgium)	5,000,000	Russian	200,000,000
French	65,000,000	Serbo-Croatian (Yugoslavia)	15,000,000
German	100,000,000	Siamese	16,000,000
Greek	8,000,000	Singhalese (Ceylon)	5,000,000
Gujarati (India)	13,000,000	Spanish	125,000,000
Hausa (Central Africa)	9,000,000	Sudanic: including Hausa (Central Africa)	75,000,000
Hindustani (India; Pakistan)	140,000,000	Sundanese (Indonesia)	8,500,000
Hungarian	13,000,000	Swahili (E. Africa)	8,000,000
Indic: including Assamese, Bengali, Bihari, Gujarati, Hindustani, Lahnda, Marathi, Oriya, Punjabi, Rajasthani, Sindhi, Singhalese	325,000,000	Swedish	7,000,000
Indonesian: including Balinese,		Tai: including Siamese	18,000,000
		Tamil (India)	23,850,000
		Telugu (India)	27,000,000
		Tibeto-Burman: including Tibetan and Burmese	20,000,000
		Turkic: including Kazakh, Tatar, Turkish, Uzbek	42,000,000
		Turkish	18,000,000
		Uzbek (U.S.S.R.)	5,000,000
		Yiddish	5,000,000

Universities—Ancient and Modern

Universities, in the modern sense of the term, sprang up in the 12th and 13th centuries in response to the resurgence of learning that preceded the Renaissance in Europe. Procedure at the early universities was informal, with students gathering at some place in a city to listen to a pre-eminent teacher. There were no campuses, buildings or endowments. Actually, the term "university" once meant a guild or corporation; there were, in the medieval period, "universities" of bootmakers, weavers, etc. Thus the university of learning was similar in organization to the guilds. The students filled the role of apprentices and the teachers were the masters.

The first European university was that

of Salerno in the 9th century, when it was known as a school of medicine. By the 11th century, it had become one of the most famous medical schools of Europe.

University of Bologna. Originated 1158 by students as a means of protection against the merchants and citizens of Bologna who had raised prices of food and lodging. It was famous for its legal scholars. The students were organized into two guilds and exercised a great deal of authority over the administration and the professors; they controlled all academic matters except the granting of degrees.

Other Italian universities famed in the Middle Ages included those at Arezzo, Fer-

rara, Florence, Modena, Naples, Padua, Pavia, Perugia, Siena and Vicenza.

University of Paris. Originated between 1150 and 1170 in a cathedral school on the Ile de la Cité, it was later moved to the left (south) bank of the Seine, although it remained under the authority of the chancellor of Notre Dame. It developed into the most famous continental center of learning of its day. Its four principal schools were theology, medicine, law and arts. By the 14th century, the university had some 40 colleges, of which the *Sorbonne* became the most celebrated.

The universities of Paris and Bologna had a marked influence in the subsequent creation of other university centers. About 1200, there was a migration of students from Paris to *Oxford* (founded in the 12th century) and a decade or two later, from Oxford to *Cambridge* (also founded in the 12th century).

Other famous universities of the Middle Ages include the *University of Toulouse* (1233), *Salamanca* (1243), *Seville* (1254), *Orléans* (1305), *Valladolid* (1346), *Prague* (1347), *Kraków* (1364), *Vienna* (1364), *Erfurt* (1379), *Heidelberg* (1385), *Cologne* (1388), *Leipzig* (1409), *Rostock* (1419) and *Louvain* (1426).

The Renaissance

The Renaissance gave fresh impetus to the universities of Europe. In France three of importance arose in the 15th century—the *University of Aix* (1409, Provence), the *University of Poitiers* (1431) and the *University of Caen* (1437).

Other French institutions of note that arose in this era were at *Bordeaux* (1441), *Valence* (1452), *Nantes* (1463) and *Bourges* (1465). New European universities were also founded at *Trier* (1450), *Freiburg* (1455), *Ingolstadt* (1459), *Basel* (1460), *Budapest* (1475), *Mainz* (1476), *Uppsala* (1477), *Tübingen* (1477), *Copenhagen* (1479), *Wittenberg* (1502), *Frankfurt on Oder* (1506) and *Coimbra* (1537).

St. Andrews, founded in 1411, was the first university in Scotland. Others were the *University of Glasgow* (1453) and the *University of Aberdeen* (1494). The *College of Edinburgh* was established in the post-Reformation period (1582). In Ireland, *Trinity College* was founded in Dublin in 1591.

Reformation and Post-Reformation

Until the Reformation, most of the institutions of higher learning in Europe were under the tutelage of the Catholic Church. After 1520, however, many established universities declared their independence of the Church. Cromwell's rule brought about new scholastic methods at both Oxford and Cambridge and the establishment of new colleges thoroughly imbued with Protestantism.

But the first Protestant university was that of *Marburg*, Germany, founded in 1527. Other Protestant universities were: *Königsberg* (1544); *Jena* (1558); *Helmstedt* (1575); *Altdorf* (1575); *Giessen* (1607); *Strasbourg* (1621) and *Halle* (1693).

18th, 19th and 20th Centuries

Among the more famous institutions in this era was *Göttingen* (1736), whose school of history became celebrated throughout Europe. Others were: *Erlangen* (1743); *Berlin* (1809); *Lemberg* (Lwów) (1816); *Bonn* (1818); *Helsingfors* (1826); the *National University at Athens* (1837); *Bucharest* (1864); *Tokyo* (1868); *Sofia* (1888); *Kyoto* (1897), and *Constantinople* (Istanbul) (1900).

Among the more famous British universities established in the 19th and 20th centuries were the *University of London* (1828); *Manchester* (1851); the *Mason University College* in Birmingham, later *Birmingham University* (1900); *Liverpool* (1903); *Leeds* (1904); and the *University of Sheffield* (1905). The *University of Wales* (1893) is composed of the colleges of *Aberystwyth*, *Bangor* and *Cardiff*.

There are many large and important universities in the British Commonwealth. In Canada, the famous *McGill University* in Montreal was founded in 1821. Others are the *University of Toronto* (1827); *Queens University* at Kingston, Ont. (1841); *Laval University*, Quebec (1852); *Dalhousie*, Halifax (1818), and *Montreal University* (1876).

The early universities in India were patterned after London University rather than on the Oxford-Cambridge style, and were purely examining institutions. *Calcutta*, *Bombay* and *Madras* universities were founded in 1857 as examining bodies.

In Australia, the state plays an important role in the development of universities. The *University of Melbourne* (1853) has the largest enrollment. Among the others are *Adelaide* (1874); *Tasmania* (1890); *Queensland* (1910); *Sydney* (1850), and *West Australia* (1911).

There are also many well-endowed universities in New Zealand, South Africa, and other parts of the Commonwealth.

By 1800, Russia had only three universities—*Vilna* (1578), *Dorpat* (1632) and *Moscow* (1755). Other institutions developed later were the *University of Kharkov* (1804); *Kazan* (1804); *St. Petersburg* (1819); *St. Vladimir in Kiev* (1832); *Odesa* (1865); *Warsaw*, which is now Polish (1886) and *Tomsk*, in Siberia (1888). The building of universities after the Revolution of 1917 was spurred by the Soviet government.

In China, the growth of universities was hampered by the chaotic state of the government in the 1900's, the recurring civil wars and the conflict with Japan.

The United States

Universities in the United States marched in step with the progress of the nation. The early settlers brought a heritage of European culture which they planted in New England soil. The first university in the country was started as *Harvard College* in 1636, with an endowment totaling 800 pounds. Harvard was to become probably the most famous of the American universities, with an endowment in 1952 of more than \$240,000,000, a faculty of 2,700 members and a student enrollment of approximately 10,000.

The *College of William and Mary* (1693) was the second institution of higher learning established in the colonies. Others started during the colonial period (current names only) are: *Yale* (1701); *University of Pennsylvania* (1740); *Princeton* (1746); *Washington and Lee* (1749); *Co-*

lumbia (1754); *Brown* (1764); *Rutgers* (1766) and *Dartmouth* (1770).

After the Revolution of 1776, the state tax-supported university was established. The *University of Virginia* (1819) was a notable early example of this type.

Colleges for women grew up in the second quarter of the 19th century. Among these are: *Mt. Holyoke* (1837); *Elmira* (1855); *Vassar* (1861); *Wells* (1868); *Hunter* (1870); *Wellesley* (1870); *Smith* (1871) and *Bryn Mawr* (1880).

In the latter part of the 19th century, universities established by private endowments arose. Typical of these are: *Cornell* (1865), which is also a land-grant institution; *Johns Hopkins* (1876); *Stanford* (1885) and the *University of Chicago* (1890).

Libraries of the World

Europe and Asia

Among the great libraries of the world, the *British Museum* remains in the first rank with more than 5,000,000 printed volumes and manuscripts. It contains such outstanding treasures as the *Codex Alexandrinus* and the *Codex Sinaiticus* of the Bible, the best collection of Greek papyri from Egypt, and vast collections of original historical manuscripts of incalculable value. Some 150,000 volumes were destroyed in air raids during World War II, but many were replaced later.

One of the finest libraries in the world is the *Bibliothèque Nationale* in Paris, which has approximately 5,000,000 volumes, 130,000 manuscripts, 400,000 medals and coins, and 4,000,000 prints and engravings.

The *State Library* in Berlin, founded in 1659-61, was combined in 1947 with the library of the University of Berlin to form a new institution known as the *Oeffentliche Wissenschaftliche Bibliothek*. Prior to World War II, the State Library had 2,850,000 volumes; the new combined library had only 1,500,000. The *State Library* at Munich also suffered extensive war losses, with some 500,000 volumes destroyed; it now contains about 2,000,000. The *Deutsche Bücher* at Leipzig had recovered most of its losses by 1950 and has more than 2,000,000 volumes. Estimates have placed the war losses of all German libraries at between 20 and 25 million volumes.

The *Nationalbibliothek* in Vienna has about 1,400,000 volumes and a large collection of papyri.

While not as large as some of the European state libraries, the *Biblioteca Apostolica Vaticana* in Rome has many priceless

old manuscripts bequeathed to the Vatican over the centuries. The printed books number about 700,000, the incunabula about 6,000 and the manuscripts about 50,000, including the *Codex Vaticanus*.

Three of the more important Italian libraries are the *Biblioteca Nazionale* in Naples, with about 1,400,000 volumes and 11,000 manuscripts; the *Biblioteca Nazionale Centrale* in Florence, with 3,400,000 volumes, manuscripts and pamphlets, and the *Biblioteca Nazionale Centrale* in Rome, with approximately 1,940,000 volumes.

Other large European libraries are the *Bibliothèque Royale* in Brussels (2,000,000 volumes), the *Biblioteca Nacional* in Madrid (1,500,000), the *University Library* at Amsterdam (more than 1,500,000) and the *Royal Library* in Stockholm (700,000). The *Lenin State Library* in Moscow is said to contain 11,000,000 volumes—largest single collection in the world—besides many collections of valuable historical documents. In Leningrad, the *Public Library* claims 6,000,000 volumes, and the *Libraries of the Academy of Sciences* some 4,000,000. There are said to be 300,000 libraries in all parts of the U.S.S.R.

In the Far East, the most extensive libraries are found in Japan, although war damage in 1944-45 was severe. In Tokyo, the *National Diet Library* (formerly the *Imperial Library*) was organized in 1948 as a deposit center. With its various branches, it contains an estimated 3,000,000 volumes. The *University Library* at Kyoto has about 1,700,000.

The United States and Canada

The earliest libraries in the Colonial era were privately owned, although in 1731 Benjamin Franklin projected the first subscription library in Philadelphia. Endow-

ments helped to set up many of the large libraries, although many of these institutions are now receiving state or municipal support.

The largest library in the United States is the *Library of Congress*, established in 1800 by Congress. In 1952, it contained 9,000,000 books and pamphlets. It extends services to members of Congress and other government departments, and also offers excellent facilities for persons engaged in scholarly research.

The *New York Public Library*, with more than 5,475,000 volumes, is the largest public library in the U. S.

The *American Library Directory* for 1951 listed 11,034 libraries in the U. S., including 6,416 public (with 2,864 branches), 1,425 college and university, 1,399 special and 1,794 other types.

The growth of libraries attached to colleges and universities in the United States

has been phenomenal, and some of the university libraries are among the largest in the country. Those with more than 1,000,000 volumes each in 1952 were as follows: Harvard, 5,500,000; Yale, 4,060,000; University of California, including branches, 2,900,000; University of Illinois, 2,480,000; Columbia, 2,010,000; University of Chicago, 1,860,000; Stanford, 1,750,000; University of Minnesota, 1,600,000; Cornell, 1,510,000; Princeton, 1,500,000; University of Michigan, 1,470,000; University of Pennsylvania, 1,240,000; Northwestern, 1,060,000; and Duke, 1,040,000.

In Canada, the most important public library is that of Toronto, which has more than 500,000 volumes. Other large Canadian university libraries are at Queens (225,000), McGill (625,000) and Laval (375,000). The *American Library Directory* for 1951 listed a total of 806 libraries in Canada, including 478 public.

Museums of the World

(For U. S. Museums see INDEX.)

The modern museum originated during the Renaissance, when the revival of interest in the arts and classical antiquity led princes, nobles and humanists to amass specimens of historical value and to house their collections in special buildings or galleries.

Art Museums

The *British Museum*, London, contains some of the most famous historical objects of the world, including the Elgin Marbles and the Rosetta Stone.

Victoria and Albert Museum, London, whose primary object is to furnish examples to illustrate the history of art, emphasizes architecture and sculpture, ceramics, engraving, book production, paintings, textiles, etc. The library is devoted principally to fine and applied arts of all countries.

National Gallery, London, contains a great number of old Masters, including paintings by Da Vinci, Michelangelo, Tintoretto, Mantegna, Titian, Bellini, Jan van Eyck, Rubens, Rembrandt, Holbein, Constable and Turner.

Tate Gallery, London, established as part of the National Gallery, was badly damaged during air raids of World War II, but was completely restored by 1949.

Wallace Collection, London, has many objects of art and curios of French origin, and first-rank canvases and etchings of Italian, Spanish, Flemish, Dutch and English artists.

In France, the most famous gallery is the *Louvre* in Paris, noted for the magnificence of its architecture as well as for its art collection, which is the largest in

the world. Other Parisian museums of importance are *Cluny*, *Rodin*, *Guimet*, and *Carnavalet*.

Among the magnificent Italian museums, the *National Museum* at Naples contains one of the best arranged and classified collections. The *Uffizi Gallery* in Florence, founded by the Medici, has one of the world's largest and best collections of Italian art. Other galleries in Florence are the *Gallery of Modern Art* (*Pitti Palace*) and the *National Museum* (*Bargello*). Rome has numerous museums, including several in the Vatican.

In Berlin, the *Schloss Museum* and *National Gallery* were damaged during World War II.

The *Royal Museum of Fine Arts* in Brussels has a fine collection of French, Flemish and Dutch masters and houses many canvases by Rubens, Van Dyck, Jordaens, Rembrandt, Frans Hals and Jan Steen.

The *State Museum* in Amsterdam contains superb works by Rembrandt, Vermeer and others.

Among the notable art museums in other countries are the world-famous *Museo del Prado* in Madrid; the *Tretyakov Gallery* and the *Pushkin State Museum of Fine Arts* in Moscow; the *Hermitage State Museum* in Leningrad; and the *National Museum* in Tokyo, famed for its many Oriental paintings and examples of Oriental workmanship in lacquer, jade, ivory and metal.

Science Museums

The *Ashmolean Museum*, oldest in Great Britain, was founded in 1683 by the Univer-

sity of Oxford and houses a collection of archeological and classical rarities.

Science Museum of London has exhibits of scientific instruments and appliances which review the progress of science and the history of invention. Other London museums of science are the *Natural History (British Museum)*, the *Imperial War Museum* (exhibits of both World Wars) and the *Geological Museum*.

The *Liverpool Museums* contain valuable collections of natural history and antiquities and are divided into departments of zoology, botany, geology, archeology and ethnology. The buildings were almost completely destroyed during World War II, although most of the exhibits were saved.

The *Manchester Museum* serves as both a municipal and a university museum. The *Bristol Museum* contains departments of geology, zoology, botany, archeology and Bristol antiquities. The *National Museum of Wales* at Cardiff has departments of archeology, botany, geology and zoology.

In Edinburgh, Scotland, are the famed *Royal Scottish Museum*, which has collections in art, ethnography, natural history, technology and archeology; and the *National Museum of Antiquities of Scotland*, noted for its coin and manuscript collections.

The *National Museum* in Dublin and the *Municipal Museum* in Belfast have important science collections.

Notable institutions of continental Europe include the *Natural History Museum* in Paris, the *Museum of Oceanography* in Monaco, the *Natural History Museum* in Lisbon, the *State Museum of Geology and Mineralogy* in Leyden (Netherlands), the *Museum of Natural History* in Stockholm, the *Natural History Museum* in

Vienna, the *Hungarian National Museum* in Budapest, the *National Museum* in Prague, and the various natural science museums in Basel, Berne, Geneva, Lausanne and Neuchâtel, Switzerland. Most larger cities of the U.S.S.R. have science museums of varying sizes, some specializing in local exhibits of natural history.

Famous science museums in Germany prior to World War II included the various sections of the *Staatlichen Museen* in Berlin (re-established after the war) and the museums of natural history and ethnography in Hamburg.

In Calcutta is the *Indian Museum*, outstanding for its marine fauna and vertebrate fossils, and in Bombay the *Victoria and Albert Museum*.

In Australia are the *Queensland Museum* and the *Botanic Museum* in Brisbane, the *South Australian Museum* in Adelaide, and the *Australian Museum* in Sydney.

New Zealand contains the *Canterbury Museum*, Christchurch, rich in local fauna, flora and geological items, and a Maori and Polynesian ethnological collection.

In Africa, the *South Africa Museum*, Capetown, holds general and local history collections and others illustrating anthropology, ethnology and archeology. The *Durban Museum* contains much anthropological material. In Cairo are the notable collections of the *Egyptian Museum*.

Other museums of note include the *Archeological Museums* at Istanbul, the *Tokyo Science Museum*, the *National Museum of Natural History* in Santiago (Chile), the *National Museum* at Rio de Janeiro, and the *Argentine National Museum of Natural Sciences* at Buenos Aires.

Zoological Gardens of the World

Far from being a modern idea, the custom of keeping savage beasts in captivity is as ancient as recorded history. In the early part of the 12th century, B.C., the Chinese king Wen had a special zoo where he housed animals captured from all parts of ancient China.

One of the earliest modern zoos, the *Jardin des Plantes* in Paris, was established in 1793. In the following century zoological gardens were established in many of the major cities of the world.

At Giza, outside Cairo, the zoological garden is lodged in a beautiful park maintained by the Egyptian government. Its large collection of animals is chiefly African in origin. Elsewhere in Africa, at Khartoum in the Sudan, at Pretoria (largest on the continent) and at Johannesburg, fine specimens are found in state-supported zoological gardens.

North America has more than 30 major zoos, in the United States, Canada and Mexico. The *Quebec Zoological Society's* collection is made up of Canadian species; Toronto has also many exotic species.

The first zoological garden in the United States was established in Philadelphia in 1874. Since that time nearly every large city in the country has acquired a zoo. Among the largest are the celebrated *Bronx Zoo* and the *Central Park Zoo* in New York, the *Lincoln Park Zoo* and the *Brookfield Zoo* in Chicago, and those in St. Louis, Cincinnati, Detroit, Kansas City and San Diego. The *National Zoological Park* in Washington, D. C., in a beautiful setting of hills, woods and streams, was established in 1890 by an act of Congress. Some of the U. S. zoos exhibit their collections in open-air, barless pits; the Brookfield Zoo is an example.

Extensive collections in South America are found at Buenos Aires, and at Concepción and Santiago in Chile. At Belém, Brazil, a zoological-botanical garden is noteworthy for its specimens of Amazonian birds and animals.

In Asia, important collections were established by the governments and by native princes. Largest in India is the zoo at Alipore, Calcutta; other excellent zoos are located at Bombay, Karachi and on private estates. Singapore, Batavia and Surabaya have important collections. Others are found at Fort de Kock on Sumatra's west coast; and at Johore Bahru in Malaya. Japan abounds in large and small zoos and privately owned aviaries, located in Tokyo, Nagoya, Kyoto, Osaka and Kobe; many of these were severely damaged during World War II.

Sydney, Melbourne, Adelaide and Perth have large zoological gardens; smaller zoos in Australia are found at Brisbane and Wellington. The Auckland, New Zealand, collection has a representative group of native fauna.

In Europe, zoological gardens have long been popular public institutions. The *Jardin d'Acclimatation*, in the Bois de Boulogne, Paris, was established in 1858, and a model zoo at Vincennes was added in 1937 for the Paris Exposition.

Germany had about 20 zoological gardens, many of which were developed in the peacetime years between World Wars I and II. Large zoos were located in Berlin and Frankfurt on Main. In Munich, the animals were grouped according to the continent of their origin. Others were established at Dresden, Leipzig and Cologne.

At Stellingen, the *Hagenbeck Garden* became an outstanding show place and distributing center for animals. Smaller collections were established at Düsseldorf, Elberfeld and Hanover. Several German zoos, notably that at Berlin, were destroyed during World War II.

The *Schönbrunn* at Vienna is one of the oldest zoos in Europe. The Budapest zoological gardens house a fine collection of European birds. At Antwerp, the *Royal Zoological Society* founded a large menagerie in 1843. It was seriously damaged by German bombs during World War II.

In the British Isles, the outstanding collection is in the garden of the *London Zoological Society* in Regent's Park. Although this zoo received a number of direct bomb hits in 1940-41 and again in 1944, it remained open throughout World War II; visitors during this period numbered 6,500,000. Manchester and Clifton have smaller gardens, and the one at Edinburgh is famous for its collection of penguins. The *Dublin Zoo* is noted for its lions, many of which were born there.

The Amsterdam zoo, with its East Indian collection and its aquarium, and the Rotterdam gardens are the two best known in the Netherlands. Built on a high elevation, the *Skansen Zoo* in Stockholm exhibits its north European specimens. The most important gardens in the U.S.S.R. are found in Moscow, where northern as well as exotic species are collected. The zoo at Rome has part of its collection confined in barless pits. At Lisbon there is a small zoological garden, and in Madrid a part of the original royal menagerie.

Famous Structures

(See also Seven Wonders of the World.)

Ancient

The Great Sphinx of Egypt, one of the wonders of ancient Egyptian architecture, adjoins the pyramids of Giza and has a length of 189 ft. It was built in the 4th dynasty and was used as a temple.

Other Egyptian buildings of note include the *Temples of Karnak and Edfu* and the *Tombs at Bent Hassan*.

The Parthenon of Greece, built on the Acropolis in Athens, was the chief temple to the goddess Athena. It was believed to have been completed by 438 B.C. The present temple remained intact until the 5th century A.D. Today, though the Parthenon is in ruins, its majestic proportions are still discernible.

Other great structures of ancient Greece were the *Temples at Paestum* (about 540 and 420 B.C.); the *Temple of Poseidon* (about 460 B.C.); the *Temple of Apollo at Corinth* (about 540 B.C.); the *Temple of Apollo at Bassae* (about 450-420 B.C.); the

famous *Erechtheum* atop the Acropolis (about 421-405 B.C.); the *Temple of Athena Nike* at Athens (about 426 B.C.); the *Olympieum* at Athens (174 B.C.-A.D. 131); the *Athenian Treasury* at Delphi (about 515 B.C.); the *Propylaea* of the Acropolis at Athens (437-432 B.C.); the *Theater of Dionysus* at Athens (about 350-325 B.C.); the "*House of Cleopatra*" at Delos (138 B.C.) and the *Theater at Epidaurus* (about 325 B.C.).

The Colosseum (Flavian Amphitheater) of Rome, the largest and most famous of the Roman amphitheaters, was opened for use A.D. 80. Elliptical in shape, it consisted of three stories and an upper gallery, rebuilt in stone in its present form in the third century A.D. Its seats rise in tiers, which in turn are buttressed by concrete vaults and stone piers. It could seat between 40,000 and 50,000 spectators. The Colosseum was principally used for gladiatorial combat.

The Pantheon at Rome, begun by Agrippa in 27 B.C. as a temple, was rebuilt in its present circular form by Hadrian (A.D. 110-25). Literally the Pantheon was intended as a temple of "all the gods." It is remarkable for its perfect preservation today, and it has served continuously for 20 centuries as a place of worship.

Famous Roman arches includes the *Arch of Constantine* (about A.D. 315) and the *Arch of Titus* (about A.D. 80).

Later European

St. Mark's Cathedral in Venice (1063-67), one of the great examples of Byzantine architecture, was begun in the 9th century. Partly destroyed by fire in 976, it was later rebuilt as a Byzantine edifice.

Other famous Byzantine examples of architecture are *St. Sophia* in Constantinople (A.D. 532-37); *San Vitale* in Ravenna (542); *St. Paul's Outside the Walls*, Rome (5th century); the *Kremlin* baptism and marriage church, Moscow (begun in 1397); and *St. Lorenzo Outside the Walls*, Rome, begun in 588.

The Cathedral Group at Pisa (1067-1173), one of the most celebrated groups of structures built in Romanesque style, consists of the cathedral, the cathedral's baptistery, and the *Leaning Tower*. This trio forms a group by itself in the north-west corner of the city. The cathedral and baptistery are built in black and white marble. The campanile (*Leaning Tower*) is 179 ft. high and leans more than 16 feet out of the perpendicular. There is little reason to believe that the architects intended to have the tower lean.

Other examples of Romanesque architecture include the *Vézelay Abbey* in France (1130); the *Church of Notre-Dame-du-Port* at Clermont-Ferrand in France (1100); the *Church of San Zeno* (begun in 1138) at Verona, and *Durham Cathedral* in England.

The Alhambra (1248-1354), located in Granada, Spain, is universally esteemed as one of the great masterpieces of Mohammedan architecture. Designed as a palace and fortress for the Moorish monarchs of Granada, it is surrounded by a heavily fortified wall more than a mile in perimeter. The location of the Alhambra in the Sierra Nevada provides a magnificent setting for this jewel of Moorish Spain.

Notre-Dame de Paris (begun in 1163), one of the great examples of Gothic architecture, is a twin-towered church with a steeple over the crossing and immense flying buttresses supporting the masonry at the rear of the church.

Other famed Gothic structures are *Westminster Abbey*, London (begun 1245; damaged in World War II); *Chartres Cathedral* (12th century); *Sainte Chapelle*, Paris (1246-48); *Laon Cathedral*, France (1160-

1205); *Rheims Cathedral* (about 1210-50; rebuilt after its almost complete destruction in World War I); *Rouen Cathedral* (13th-16th centuries); *Amiens Cathedral* (1218-69); *Beauvais Cathedral* (begun 1247); *Salisbury Cathedral* (1220-60); *York Minster* or the *Cathedral of St. Peter* (begun in the 7th century); *Milan Cathedral* (begun 1386); and *Cologne Cathedral* (13th-19th centuries; badly damaged in World War II).

The Duomo (cathedral) in Florence was founded in 1298, completed by Brunelleschi and consecrated in 1436. The oval-shaped dome dominates the entire structure.

Other examples of Renaissance architecture are the *Palazzo Vecchio*, the *Palazzo Pitti* and the *Palazzo Strozzi* in Florence; *St. Peter's*, in Rome (begun in 1506 and consecrated in 1626); the *Farnese Palace* in Rome; *Palazzo Grimani* (completed about 1550) in Venice; the *Escorial* (1563-93) near Madrid; the *Town Hall of Seville* (1527-32); the *Louvre*, Paris; the *Château at Blois*, France; *St. Paul's Cathedral*, London (1675-1710; badly damaged in World War II); the *École Militaire*, Paris (1752); the *Pazzi Chapel*, Florence, designed by Brunelleschi (1429); the *Palaces of Versailles* and of *Fontainebleau* and the *Château de Chambord* in France.

Outstanding European buildings of the 18th and 19th centuries are the *Superga* at Turin, the *Hôtel-Dieu* in Lyon, the *Belvedere Palace* at Vienna, the *Royal Palace* of Stockholm, the *Opera House* of Paris (1863-75); the *Bank of England*, the *British Museum*, the *University of London* and the *Houses of Parliament*, all in London; the *Panthéon*, the *Church of the Madeleine*, the *Bourse* and the *Palais de Justice* in Paris.

Asiatic

The Taj Mahal (1632-50), at Agra, India, built by Shah Jahan as a tomb for his wife, is considered by some as the most perfect example of the Mogul style and by others as the most beautiful building in the world. Four slim white minarets flank the building, which is topped by a white dome; the entire structure is of marble.

Other examples of Indian architecture are the temples at Benares and Tanjore.

Famed Mohammedan edifices are the *Dome of the Rock* or *Mosque of Omar*, Jerusalem (A.D. 691); the *Citadel* (1166), and the *Tombs of the Mamelukes* (15th century), in Cairo; the *Tomb of Humayun* in Delhi; the *Blue Mosque* (1468) at Tabriz and the *Tamerlane Mausoleum* at Samarkand.

Angkor Vat, outside the city of Angkor Thom, Cambodia, is one of the most beautiful examples of Cambodian or Khmer architecture. The sanctuary was built during the 12th century. Its temple court is protected by a broad moat.

Great Wall of China (228 B.C.?), designed specifically as a defense against nomadic tribes, has numerous large watch towers which could be called buildings. It was erected by Emperor Ch'in Shih Huang Ti and is 1,400 miles long. Built mainly of earth and stone, it varies in height between 18 and 30 feet.

Typical of Chinese architecture are the pagodas or temple towers. Among some of the better known pagodas are the *Great Pagoda of the Wild Geese* at Sian (founded in 652); *Nan t'a* (11th century) at Fang Ehan; the *Pagoda of Sung Yueh Su* (A.D. 523) at Sung Shan, Honan.

Other well-known Chinese buildings are the *Drum Tower* (1273), the *Three Great Halls* in the Purple Forbidden City (1627), *Buddha's Perfume Tower* (19th century),

the *Porcelain Pagoda* and the *Summer Palace*, all at Peking.

United States

Rockefeller Center, New York City, completed in 1940, is a remarkable group of examples of American skyscraper architecture. It is dominated by the 70-story R. C. A. building in the center.

Empire State Building, New York City, the loftiest building in the world, has 102 stories and is 1,250 feet high.

Other famous examples of modern buildings in the United States are the *Chrysler Building* and the *United Nations Building* in New York; the *Merchandise Mart*, the *Board of Trade Building* and *Civic Opera Building* in Chicago; and the *Pentagon* in Washington. (See also *America's Tallest Buildings*.)

Great Dams of the World

Reservoir capacity, thousands of acre feet	Name	Location	Maximum height, feet	Date completed
31,142	Hoover	Colorado River, Ariz.-Nev.	726	1936
24,500	Garrison	Missouri River, N. Dak.	210	*
19,800	Oahe	Missouri River, S. Dak.	230	*
19,412	Fort Peck	Missouri River, Mont.	250	1940
9,517	Grand Coulee	Columbia River, Wash.	550	1942
6,200	Fort Randall	Missouri River, S. Dak.	150	*
6,100	Kentucky	Tennessee River, Ky.	160	1944
6,089	Wolf Creek	Cumberland River, Ky.	242	1951
6,000	Hirakud	Mahandi River, India	180	*
5,825	Denison	Red River, Okla.-Tex.	165	1944
4,500	Shasta	Sacramento River, Calif.	602	1945
4,407	Gatun	Chagres River, Panama Canal Zone	115	1912
4,060	Aswan	Nile River, Egypt	174	1934
3,500	Hungry Horse	Flathead, S. Fk., Mont.	520	*
3,263	Lázaro Cárdenas (El Palmito)	Nazas River, Mex.	295	1948
3,000	Salt Springs	North Fork, Mokelumne River, Calif.	345	1931
2,567	Norris	Clinch River, Tenn.	265	1936
2,432	Alvaro Obregón (Oviachic)	Yaqui River, Sonora, Mex.	187	*
2,300	Saluda	Saluda River, S. C.	208	1930
2,219	Elephant Butte	Rio Grande, N. Mex.	301	1916
2,150	Mettur	Cauvery River, India	214	1934
2,092	Center Hill	Caney Fork River, Tenn.	240	1950
2,000	Hume	Murray River, Australia	180	1936
2,000	Kingsley	North Platte River, Nebr.	162	1941
1,997	Osage (Bagnell)	Osage River, Mo.	148	1931
1,983	Norfolk	North Fork River, Ark.	230	1944
1,980	Chelsea	Gatineau River, Canada	100	1927
1,975	Pensacola	Grand River, Okla.	152	1940
1,934	Marshall Ford (Mansfield)	Colorado River, Tex.	270	1941
1,820	Davis	Colorado River, Ariz.-Nev.	200	1949
1,706	Dale Hollow	Obey River, Tenn.-Ky.	183	1943
1,704	American Falls	Snake River, Idaho-Wyo.	92	1927
1,702	El Azucar	San Juan River, Mexico	142	1943
1,565	Cherokee	Holston River, Tenn.	212	1942
1,560	Sardis	Little Tallahatchie River, Miss.	117	1940
1,540	Douglas	French Broad River, Tenn.	160	1943
1,450	Fontana	Little Tennessee River, N. C.	470	1944
1,400	Roosevelt	Salt River, Ariz.	280	1911

* Under construction in 1952.

Area and Population by Country

Country	Area, sq. mi.	Population	Year ¹	Country	Area, sq. mi.	Population	Year ¹
Afghanistan.....	270,000	12,000,000	1950E	Jordan.....	39,460	1,400,000	1951E ²
Albania.....	10,629	1,200,000	1950E	Korea.....	85,225	29,238,641	1949E
Argentina.....	1,079,965	17,097,889	1950E	Laos.....	91,428	1,214,000	1950E
Australia.....	2,974,581	8,431,391	1951E	Latvia ⁴	25,395	2,100,000	1950E
Austria.....	32,388	6,918,959	1951C	Lebanon.....	3,475	1,303,940	1951E
Belgium.....	11,783	8,653,653	1950E	Liberia.....	43,000	1,600,000	1949E
Bhutan.....	18,000	300,000	E	Libya.....	679,340	1,191,000	1950E
Bolivia.....	416,040	3,019,031	1950C	Liechtenstein.....	65	13,757	1950C
Brazil.....	3,291,416	53,377,000	1951E	Lithuania ⁴	22,958	3,000,000	1950E
Bulgaria.....	42,741	7,235,000	1950E	Luxemburg.....	1,010	300,000	1951E
Burma.....	261,749	18,674,000	1951E	Mexico.....	758,061	25,367,802	1950C ²
Cambodia.....	53,668	3,296,000	1950E	Monaco.....	0.59	20,000	1951E
Canada.....	3,619,616	14,009,429	1951C	Mongolian People's Rep.....	580,158	900,000	1950E
Ceylon.....	25,332	7,743,000	1951E	Nepal.....	54,000	7,000,000	1948E
Chile.....	286,323	5,862,000	1950E	Netherlands.....	12,514	10,328,343	1952E
China ²	3,858,900	475,000,000	1950E	New Zealand.....	103,416	1,939,703	1951C
Colombia.....	439,714	11,294,844	1951E	Nicaragua.....	57,143	1,053,189	1950C ²
Costa Rica.....	19,238	838,084	1951E	Norway.....	125,193	3,309,000	1951E
Cuba.....	44,217	5,415,000	1950E	Pakistan.....	337,524	75,687,000	1951C ²
Czechoslovakia.....	49,330	12,519,000	1949E	Panamá.....	28,575	805,285	1950C
Denmark.....	16,575	4,313,400	1952E	Paraguay.....	154,165	1,406,000	1950C ²
Dominican Republic.....	19,327	1,167,000	1951E	Peru.....	482,133	8,406,000	1950E
Ecuador.....	104,510	3,077,000	1950C ²	Philippines.....	114,400	20,945,800	1951E
Egypt.....	383,000	20,729,000	1951E	Poland.....	119,703	24,976,926	1950C
El Salvador.....	13,176	1,949,608	1951E	Portugal.....	35,413	8,490,000	1950C ²
Estonia ⁴	18,357	1,126,415	1940E	Rumania.....	91,934	16,094,000	1950E
Ethiopia.....	350,000	10,000,000	1950E	Saar.....	898	943,000	1950E
Finland.....	130,160	4,068,000	1951E	San Marino.....	38	12,780	1950E
France.....	212,741	42,400,000	1951E	Saudi Arabia.....	597,000	6,000,000	1950E
Germany:				Spain.....	194,945	28,286,518	1950C ²
Democratic Rep.....	41,700	17,313,700	1946C	Sweden.....	173,341	7,099,204	1951E
Federal Rep.....	94,634	47,575,658	1950C ²	Switzerland.....	15,940	4,780,000	1951E
Greece ⁵	51,182	7,603,599	1951C	Syria.....	73,587	3,329,137	1951E
Guatemala.....	45,452	2,787,000	1950C	Thailand.....	198,247	18,836,000	1951E
Haiti.....	10,748	3,111,973	1951C	Tibet.....	469,294	3,000,000	1948E
Honduras.....	59,145	1,533,625	1950C	Turkey.....	296,185	20,934,670	1950C
Hungary.....	35,893	9,313,000	1950E	Un. of So. Africa.....	472,550	12,646,375	1951C
Iceland.....	39,709	146,500	1951E	U.S.S.R.....	8,473,444	207,000,000	1952E
India.....	1,220,099 ⁶	356,891,624 ⁷	1951C ²	United Kingdom.....	93,371	50,211,602	1951C ²
Indonesia.....	583,479	80,000,000	1951E	United States.....	2,977,128	150,697,361	1950C
Iran.....	634,413	20,000,000	1951E	Uruguay.....	72,172	2,650,000	1949E
Iraq.....	116,600	5,100,000	1950E	Vatican City.....	108.7 ⁸	800	1948E
Ireland.....	26,601	2,958,878	1951C ²	Venezuela.....	352,143	4,986,000	1950C
Israel.....	8,084	1,602,000	1952E	Viêt-Nam.....	127,259	23,073,000	1950E
Italy.....	116,235	47,020,536	1951C	Yemen.....	31,000	1,600,000	1950E
Japan.....	146,690	84,400,000	1951E	Yugoslavia.....	99,044	16,545,000	1952E

¹ E—Estimated; C—Census. ² Preliminary figure. ³ Including Formosa, Manchuria, Tibet; excluding Outer Mongolia. ⁴ Actually Russian S.S.R., but still recognized by U. S. as independent country. ⁵ Including Dodecanese. ⁶ Including Kashmir. ⁷ Excluding Kashmir. ⁸ Acres. ⁹ Including Arab Palestine.

National Holidays of American Countries

Source: U. S. Department of State.

Argentina: Independence Day, July 9.
 Bolivia: Independence Day, Aug. 6.
 Brazil: Independence Day, Sept. 7.
 Canada: Dominion Day, July 1.
 Chile: Independence Day, Sept. 18.
 Colombia: Independence Day, July 20.
 Costa Rica: Independence Day, Sept. 15.
 Cuba: Independence Day, May 20.
 Dominican Republic: Independence Day,
 Feb. 27.
 Ecuador: Independence Day, Aug. 10.

El Salvador: Independence Day, Sept. 15.
 Guatemala: Independence Day, Sept. 15.
 Haiti: Independence Day, Jan. 1.
 Honduras: Independence Day, Sept. 15.
 Mexico: Independence Day, Sept. 16.
 Nicaragua: Independence Day, Sept. 15.
 Panamá: Independence Day, Nov. 3.
 Paraguay: Independence Day, May 14.
 Peru: Independence Day, July 28.
 Uruguay: Independence Day, Aug. 25.
 Venezuela: Independence Day, July 5.

Largest Cities of the World

(Exact rating of the cities of the world according to size is impossible because of the diversity of the years for which census or estimated population figures have been issued. Therefore, the rating shown in this table must be considered only approximate.)

City and country	Population	Year*	City and country	Population	Year*
1. London (Greater), England.....	8,346,000	1951C†	11. Paris, France.....	2,800,000	1948E
2. New York, N. Y., U.S.A.....	7,891,957	1950C	12. Jakarta, Indonesia.....	2,800,000	1951E
3. Shanghai, China.....	5,406,644	1950E	13. Calcutta, India.....	2,549,790	1951C†
4. Tokyo, Japan.....	5,385,071	1950C	14. Mexico City, Mexico.....	2,527,328	1950C†
5. Moscow, U.S.S.R.....	4,137,018	1939C	15. Rio de Janeiro, Brazil.....	2,413,152	1950C
6. Berlin, Germany.....	3,729,300	1949E	16. São Paulo, Brazil.....	2,227,512	1950C†
7. Chicago, Ill., U.S.A.....	3,620,962	1950C	17. Cairo, Egypt.....	2,100,506	1947C
8. Leningrad, U.S.S.R.....	3,191,304	1939C	18. Philadelphia, Pa., U.S.A.....	2,071,605	1950C
9. Buenos Aires, Argentina.....	3,000,371	1947C	19. Los Angeles, Calif., U.S.A.....	1,970,358	1950C
10. Bombay, India.....	2,840,011	1951C†	20. Osaka, Japan.....	1,956,136	1950C

Other Large Foreign Cities (over 510,000)

City and country	Population	Year*	City and country	Population	Year*
Ahmedabad, India.....	788,310	1951C†	Lahore, Pakistan.....	849,000	1951C†
Alexandria, Egypt.....	925,081	1947C	Leipzig, East Germany.....	608,111	1946C
Amsterdam, Netherlands.....	850,677	1952E	Liège, Belgium.....	573,176	1948E
Antwerp, Belgium.....	794,280	1948E	Lima, Peru.....	800,460	1949E
Athens, Greece.....	559,250	1951C	Lisbon, Portugal.....	796,227	1948E
Baghdad, Iraq.....	832,927	1946E	Liverpool, England.....	790,000	1951C†
Baku, U.S.S.R.....	809,347	1939C	Łódź, Poland.....	619,914	1950C
Bandung, Indonesia.....	659,213	1951E	Madras, India.....	1,429,985	1951C†
Bangalore, India.....	726,170	1951C†	Madrid, Spain.....	1,609,524	1950C†
Bangkok, Thailand.....	827,290	1947C	Manchester, England.....	703,000	1951C†
Barcelona, Spain.....	1,205,509	1950C†	Manila, Philippines.....	1,035,700	1951E
Birmingham, England.....	1,112,000	1951C†	Marseille, France.....	700,000	1948E
Bogotá, Colombia.....	543,590	1950E	Melbourne, Australia.....	1,326,400	1950E
Brussels, Belgium.....	1,296,687	1948E	Milan, Italy.....	1,264,402	1951C
Bucharest, Rumania.....	1,401,807	1948C	Montevideo, Uruguay.....	850,000	1948E
Budapest, Hungary.....	1,058,288	1948C†	Montreal, Canada.....	1,021,520	1951C
Canton, China.....	1,495,694	1950E	Mukden, Manchuria.....	1,551,317	1950E
Capetown, South Africa.....	571,638	1951C	Munich, West Germany.....	831,000	1950C†
Casablanca, Morocco.....	551,222	1947C	Nagoya, Japan.....	1,030,635	1950C
Changsha, China.....	606,972	1931E	Nanking, China.....	1,020,000	1950E
Chieng Mai, Thailand.....	534,623	1947C	Naples, Italy.....	1,003,815	1951C
Chungking, China.....	1,038,683	1950E	Odessa, U.S.S.R.....	604,223	1937E
Cologne, Germany.....	590,000	1950C	Peiping, China.....	1,940,290	1950E
Copenhagen, Denmark.....	764,100	1952E	Port Arthur, Kwantung.....	1,054,466	1950E
Dairen, Kwantung.....	533,696		Prague, Czechoslovakia.....	932,024	1948E
Delhi, India.....	914,634	1951C†	Recife, Brazil.....	534,468	1950C†
Dublin, Ireland.....	521,322	1951C	Rome, Italy.....	1,606,739	1951C
Essen, West Germany.....	695,000	1950C†	Rostov on Don, U.S.S.R.....	510,253	1939C
Frankfurt am Main, Germany.....	524,000	1950C†	Rotterdam, Netherlands.....	691,473	1952E
Genoa, Italy.....	678,200	1951C	Santiago, Chile.....	1,200,000	1950E
Glasgow, Scotland.....	1,090,000	1951C†	Seoul, Korea.....	1,446,049	1949E
Gorki, U.S.S.R.....	644,116	1939C	Sheffield, England.....	513,000	1951C†
Hague, The, Netherlands.....	578,516	1952E	Sian, China.....	628,499	1948E
Hamburg, West Germany.....	1,605,000	1950C†	Stockholm, Sweden.....	752,193	1951E
Hankow, China.....	721,598	1948E	Surabaya, Indonesia.....	714,898	1951E
Harbin, Manchuria.....	760,000	1948E	Sydney, Australia.....	1,549,590	1950E
Havana, Cuba.....	659,883	1943C	Tashkent, U.S.S.R.....	585,005	1939C
Hyderabad, India.....	1,085,074	1951C†	Teheran, Iran.....	850,000	1948E
Istanbul, Turkey.....	1,018,468	1950C	Tientsin, China.....	1,785,813	1950E
Johannesburg, U. of So. Af.....	880,014	1951C	Tiflis, U.S.S.R.....	519,175	1939C
Jokjakarta, Indonesia.....	1,848,886	1951E	Toronto, Canada.....	675,754	1951C
Kanpur, India.....	704,536	1951C†	Tsingtao, China.....	850,308	1948E
Karachi, Pakistan.....	1,005,000	1951C†	Turin, Italy.....	711,492	1951C
Khar'kov, U.S.S.R.....	833,432	1939C	Valencia, Spain.....	509,075	1950C†
Khonkaen, Thailand.....	590,664	1947C	Victoria, Hong Kong.....	767,000	1949E
Kiev, U.S.S.R.....	846,293	1939C	Vienna, Austria.....	1,760,784	1951C
Kobe, Japan.....	765,435	1950C	Warsaw, Poland.....	650,064	1950C
Kyoto, Japan.....	1,101,854	1950C	Yokohama, Japan.....	951,189	1950C

* E—Estimated; C—Census. † Preliminary figures.

Notable Modern Bridges

Length of channel span, feet	Name	Location	Type*	Year completed
4,200	GOLDEN GATE	San Francisco	S	1937
3,500	GEORGE WASHINGTON	New York City	S	1931
2,800	TACOMA NARROWS	Tacoma, Wash.	S	1950
2,310	TRANSBAY	San Francisco	S	1936
2,300	BRONX-WHITESTONE	New York City	S	1939
2,150	DELAWARE MEMORIAL	Near Wilmington, Del.	S	1951
1,850	AMBASSADOR	Detroit, Mich.	S	1929
1,800	QUEBEC	Near Quebec, Canada	C	1917
1,750	DELAWARE RIVER	Philadelphia, Pa.	S	1926
1,700	FORTH	Firth of Forth, Scotland	C	1889
1,652	KILL VAN KULL	Bayonne, N. J.	SA	1931
1,650	SYDNEY HARBOR	Sydney, Australia	SA	1932
1,632	BEAR MOUNTAIN	Peekskill, N. Y.	S	1924
1,600	CHESAPEAKE BAY	Near Annapolis, Md.	S	1952
1,600	WILLIAMSBURG	New York City	S	1903
1,595.5	BROOKLYN	New York City	S	1883
1,550	LIONS GATE	Vancouver, Canada	S	1939
1,500	MID-HUDSON	Poughkeepsie, N. Y.	S	1930
1,500	HOWRAH	Calcutta, India	C	1943
1,470	MANHATTAN	New York City	S	1909
1,400	TRANSBAY	Oakland, Calif.	C	1936
1,380	TRIBOROUGH	New York City	S	1936
1,207	ST. JOHNS	Portland, Oreg.	S	1931
1,200	LONGVIEW	Longview, Wash.	C	1930
1,200	MT. HOPE	Near Bristol, R. I.	S	1929
1,182	QUEENSBORO	New York City	C	1909
1,114	FLORIANOPOLIS	Florianopolis, Brazil	S	1926
1,100	CARQUINEZ STRAIT	Near San Francisco	C	1927
1,097	MONTREAL HARBOR	Montreal, Canada	C	1930
1,080	BIRCHENOUGH	Southern Rhodesia	SA	1935
1,080	DEER ISLE	Deer Isle, Me.	S	1939
1,057	CINCINNATI	Cincinnati, Ohio	S	1867
1,050	OTTO BEIT	Southern Rhodesia	S	1939
1,050	COOPER RIVER	Charleston, S. C.	C	1929
1,034	COLOGNE-MÜLHEIM	Germany	S	1951
1,010	WHEELING	Wheeling, W. Va.	S	1849
977.5	HELL GATE	New York City	SA	1917
964	EAST ST. LOUIS	East St. Louis, Ill.	C	1950
950	RAINBOW	Niagara Falls, N. Y.	SA	1941
949	GRAND MERE	Quebec, Canada	S	1928
930	PEACE RIVER	Alaska Highway	S	1943
924	STORY	Queensland, Australia	C	1940
875	NATCHEZ	Natchez, Miss.	C	1940
871	BLUE WATER	Port Huron, Mich.	C	1938
866	SANDO	Sando, Sweden	CA	1943
845	DUBUQUE	Dubuque, Iowa	CT	1942
800	THOUSAND ISLANDS	Alexandria Bay, N. Y.	S	1938
800	WALDO-HANCOCK	Bucksport, Maine	S	1931
800	RIP VAN WINKLE	Catskill, N. Y.	C	1935
800	HENRY HUDSON	New York City	SA	1936
790	HUEY P. LONG	Near New Orleans, La.	C	1935

* C—Cantilever. S—Suspension. SA—Steel Arch. CA—Concrete Arch. CT—Continuous Truss.

Great Disasters

Earthquakes and Volcanic Eruptions

- A.D. 79** Aug. 24, ITALY: eruption of Mt. Vesuvius buried cities of Pompeii and Herculaneum, killing thousands.
- 1755** Nov. 1, PORTUGAL: one of the most severe of recorded earthquakes leveled Lisbon and was felt as far away as southern France and North Africa; between 10,000 and 20,000 killed in Lisbon alone.
- 1883** Aug. 26-28, NETHERLANDS INDIES: eruption of Krakatoa; violent explosions destroyed two-thirds of island. Sea waves occurred as far away as Cape Horn, and possibly England. Estimated 36,000 dead.
- 1902** May 8, MARTINIQUE, WEST INDIES: Mt. Pelée erupted and wiped out city of St. Pierre; 40,000 dead.
- 1906** April 18, SAN FRANCISCO: earthquake accompanied by fire razed more than 4 sq. mi.; more than 500 dead or missing; property damage about 250-300 millions.
- 1908** Dec. 28, MESSINA, SICILY: about 85,000 killed and city totally destroyed by one of most disastrous of recorded earthquakes.
- 1923** Sept. 1, JAPAN: earthquake destroyed third of Tokyo and most of Yokohama; more than 90,000 killed.
- 1935** May 31, INDIA: earthquake at Quetta killed an estimated 50,000.
- 1939** Jan. 24, CHILE: earthquake razed some 50,000 sq. mi.; 30,000 killed.
- 1939** Dec. 27, NORTHERN TURKEY: severe quakes destroyed city of Erzincan; about 100,000 casualties.
- 1949** Aug. 5, ECUADOR: earthquake killed about 6,000 and razed 50 towns.
- 1950** Aug. 15, INDIA: second heaviest earthquake on record affected 30,000 sq. mi. in Assam, destroying 100,000 buildings, killing 574.
- 1951** Jan. 18-21, PAPUA TERRITORY, NEW GUINEA: eruption of Mt. Lamington killed more than 3,000.
- 1951** Dec. 4-13, CAMIGUIN ISLAND, PHILIPPINES: eruptions of Mt. Hibok Hibok killed about 250; 500 missing.
- 1952** July 21, CALIFORNIA: earthquake centering near Tehachapi shook wide area; 14 dead, several hundred injured.

Floods, Avalanches and Tidal Waves

WORLD

- 1228** HOLLAND: 100,000 reputedly drowned by sea flood in Friesland section.
- 1642** CHINA: rebels besieging Kaifeng destroyed seawall, causing flood that drowned 300,000 inhabitants.
- 1887** CHINA: hundreds of thousands of lives reputedly lost in Honan province in overflow of Hwang Ho River.
- 1896** JAPAN: earthquake and tidal wave at Sanriku killed 27,000.
- 1939** CHINA: floods in north; casualties estimated at 10,000,000 homeless, starved or drowned.
- 1946** ALASKA-HAWAII: series of tidal waves in Pacific originating off Alaska killed about 150 in Hawaii.
- 1947** JAPAN: floods in wake of typhoon killed about 2,000 on Honshu Island.
- 1948** TURKEY: hundreds of persons were drowned when two rivers in southern Turkey burst their dikes.
- 1948** CHINA: about 1,000 reported dead in floods near Foochow.
- 1950** CHINA: floods in eastern and southern China left 1,000,000 homeless and killed 500.
- 1951** ALPS: snow avalanches killed more than 200 in Alpine regions of Switzerland, Italy, France and Austria.

- 1951** MANCHURIA: floods killed 1,800; 3,000 missing.

- 1951** ITALY: Po river floods killed about 150 and left 150,000 homeless.

UNITED STATES

- 1889** PENNSYLVANIA: more than 2,000 died in Johnstown flood.
- 1912** MISSISSIPPI VALLEY: Mississippi River and tributaries overflowed; 200 dead.
- 1913** OHIO AND INDIANA: floods of Ohio and Indiana rivers took 730 lives.
- 1927** MISSISSIPPI VALLEY: floods inundated 20,000 sq. mi.; 700,000 homeless.
- 1937** MISSISSIPPI AND TRIBUTARY VALLEYS: floods in the Allegheny, Mississippi, Ohio valleys killed hundreds.
- 1948** OREGON AND WASHINGTON: floods of Columbia and Willamette rivers; approximately 50 dead or missing.
- 1951** KANSAS, MISSOURI, OKLAHOMA: floods centering in Kansas City area killed more than 40 and caused damage estimated to exceed \$750,000,000.
- 1952** MISSOURI AND MISSISSIPPI VALLEYS: floods in 8 states caused damage estimated at over \$300,000,000.

Tornadoes, Typhoons and Hurricanes

WORLD

- 1864 Oct. 5, INDIA: most of Calcutta denuded by cyclone; 70,000 killed.
- 1876 Oct. 31, INDIA: cyclone and tidal wave swept 3,000 sq. mi. with Bengal worst hit; 215,000 killed.
- 1882 June 6, INDIA: cyclone and tidal wave killed 100,000 in Bombay.
- 1906 CHINA: typhoon at Hong Kong killed about 10,000.
- 1930 Sept. 3, SANTO DOMINGO (now Ciudad Trujillo): hurricane killed about 2,000 and injured 8,000.
- 1934 Sept. 21, JAPAN: hurricane killed more than 4,000 on Honshu.
- 1935 Oct. 25, HAITI: hurricane, flood killed 2,000 in Jérémie and Jacmel.
- 1942 Oct. 16, INDIA: cyclone devastated Bengal; about 40,000 lives lost.
- 1949 Oct. 27, INDIA: cyclone along south-eastern coast killed about 1,000.
- 1949 Oct. 31-Nov. 2, PHILIPPINES: 1,000 believed dead following typhoon.
- 1951 Jan. 2-3(?), COMORO ISLANDS, AFRICA: 500 reported killed in tornado.
- 1951 Oct. 4, JAPAN: more than 400 reported dead in typhoon which struck southern Japan.

- 1951 Dec. 10-13, PHILIPPINES: More than 700 reported dead in typhoons.

UNITED STATES

- 1884 Feb. 18, SOUTHERN STATES: tornadoes took about 700 lives.
- 1893 Aug. 27, SE. COAST: 900 killed.
- 1900 Sept. 8, TEXAS: Galveston hurricane and tidal wave; 5,000 dead.
- 1925 March 18, MIDWEST: about 800 killed and 13,000 injured in tornado which hit Ill., Ind., Tenn., Ky., and Mo.
- 1926 Sept. 18, FLORIDA: east coast hurricane killed 373; 40,000 homeless.
- 1928 Sept. 12, FLORIDA: hurricane from Windward Islands killed 4,000.
- 1936 April 2, MISSISSIPPI AND GEORGIA: Tupelo, Miss., and Gainesville, Ga., centers of tornadoes which swept the South; 402 killed, 1,853 injured.
- 1938 Sept. 21, NEW ENGLAND: hurricane killed at least 488 in severest recorded storm of northeastern states.
- 1947 April 9, TEXAS AND OKLAHOMA: tornado killed approximately 150.
- 1952 March 21-22, SOUTHWEST: Tornadoes and floods killed almost 250.

Fires and Explosions

WORLD

- 1666 Sept. 2, ENGLAND: "Great Fire of London" destroyed 13,200 houses, St. Paul's Church, 86 parish churches, etc. Damage 10 million pounds.
- 1812 Sept. 14, RUSSIA: fire started by Russians in Moscow after French occupation destroyed 30,800 houses.
- 1881 Dec. 8, AUSTRIA: about 850 died in Ring Theater fire in Vienna.
- 1917 Dec. 6, CANADA: explosion and fire at Halifax when ammunition ship collided with a vessel; 1,500 dead.
- 1922 ASIA MINOR: more than three-fifths of Smyrna destroyed by fire following Turkish occupation.
- 1947 Aug. 15, ENGLAND: blast in under-seas coal mine near Whitehaven, Cumberland, killed 104 miners.
- 1948 July 28, GERMANY: explosion in I. G. Farben Ludwigshaven works killed hundreds, injured 6,000.
- 1949 Sept. 2, CHINA: Fire on Chunking waterfront killed 1,700 and gutted 10,000 buildings.
- 1950 Sept. 26, ENGLAND: fire in colliery at Creswell killed 80 coal miners.
- 1951 May 29, ENGLAND: 81 killed in coal-mine explosion at Easington.
- 1951 Dec. 22, MEXICO: 41 died in fire at children's party in Tijuana.

- 1952 April 19, GERMANY: 47 died in coal-mine explosion near Zwickau in Soviet zone.

UNITED STATES

- 1835 Dec. 16, NEW YORK CITY: 530 buildings destroyed by fire.
- 1871 Oct. 8, CHICAGO: the "Chicago Fire," which started in barn, swept 2,124 acres, burned 17,450 buildings, killed 250 persons, and made 98,500 homeless; 196 million damage.
- 1872 Nov. 9, BOSTON: fire destroyed 800 buildings; 75 million damage.
- 1904 Feb. 7, BALTIMORE, MD.: Fire destroyed most of business section; 125 million damage.
- 1937 March 18, NEW LONDON, TEXAS: explosion destroyed schoolhouse; 413 children and 14 teachers killed.
- 1942 Nov. 28, BOSTON: Coconut Grove night club fire killed about 500.
- 1944 July 17, PORT CHICAGO, CALIF.: more than 300 killed in explosion of two ammunition ships.
- 1946 Dec. 7, ATLANTA: Fire in Winecoff Hotel killed 119.
- 1947 March 25, CENTRALIA, ILL.: explosion in coal mine killed 111 miners.

- 1947 April 16-18, TEXAS CITY, TEXAS: most of city destroyed, more than 500 dead following explosion on ship.
- 1949 April 5, EFFINGHAM, ILL.: hospital fire killed 66, including 13 babies.

- 1950 Jan. 7, DAVENPORT, IOWA: fire in hospital killed 41 women.
- 1950 May 19, SOUTH AMBOY, N. J.: explosion of ammunition barges killed 31.
- 1951 Dec. 21, near WEST FRANKFORT, ILL.: 119 coal miners died in explosion.

Shipwrecks (not including military or naval action)

WORLD

- 1833 May 11, LADY OF THE LAKE: bound from England to Quebec, struck iceberg; 215 perished.
- 1853 Sept. 29, ANNIE JANE: emigrant vessel off coast of Scotland; 348 died.
- 1912 March 5, PRINCIPE DE ASTURIAS: Spanish steamer struck rock off Sebastien Pt.; 500 drowned.
- 1912 April 15, TITANIC: sank after colliding with iceberg; 1,513 died.
- 1914 May 29, EMPRESS OF IRELAND: sank after collision in St. Lawrence River; 1,024 perished.
- 1928 Nov. 12, VESTRIS: British steamer sank in gale off Virginia; 110 died.
- 1931 June 14, French excursion steamer overturned in gale off St. Nazaire; approximately 450 died.
- 1939 June 1, Submarine THETIS: sank in Liverpool Bay, Eng.; 99 perished.
- 1942 Oct. 2, QUEEN MARY: rammed and sank a British cruiser; 338 aboard the cruiser died.
- 1948 Dec. 3, KIANGYA: Chinese refugee ship wrecked in explosion; about 1,000 believed dead.
- 1949 Jan. 27, TAIPIING: Chinese liner collided with collier and both sank; at least 600 died.
- 1949 Sept. 17, NORONIC: Canadian Great Lakes cruise ship burned at Toronto dock; about 130 died.
- 1950 Jan. 12, TRUCULENT: British submarine sank in Thames estuary after collision with tanker; 64 dead.
- 1950 June 19, INDIAN ENTERPRISE: British freighter exploded in Red Sea; 72 of British and Pakistani crew lost.
- 1951 April 16, AFFRAY: British submarine sank in English channel; 75 dead.

U. S. AND U. S. LINES

- 1865 April 27, SULTANA: boiler explosion on Mississippi River steamboat near Memphis; 1,450 killed.
- 1904 June 15, GENERAL SLOCUM: excursion steamer burned in New York Harbor; 1,021 perished.
- 1915 July 24, EASTLAND: Great Lakes excursion steamer overturned in Chicago River; 812 died.
- 1934 Sept. 8, MORRO CASTLE: about 130 killed in fire off Asbury Park, N. J.
- 1939 May 23, Submarine SQUALUS: sank with 59 men off Hampton Beach, N. H.; 33 of the crew were rescued.
- 1943 June 6, ammunition ship collided with tanker off Norfolk; 84 died.
- 1945 April 9, U. S. ship, loaded with aerial bombs, exploded at Bari, Italy; at least 360 killed.
- 1950 Aug. 25, BENEVOLENCE: U. S. naval hospital ship sank off San Francisco after collision with freighter; 18 dead, 5 missing.
- 1951 April 20, ESSO GREENSBORO and ESSO SUEZ: 39 believed lost in collision of two tankers in Gulf of Mexico; both ships reached port.
- 1951 Sept. 1, PELICAN: 45 drowned or missing when fishing boat capsized off Montauk Point, L. I., N. Y.
- 1952 Jan. 9, PENNSYLVANIA: freighter abandoned in Pacific; crew of 45 lost.
- 1952 Jan. 10, FLYING ENTERPRISE: freighter sank about 35 miles off southwest England after valiant 12-day effort by captain, Henrik K. Carlsen, to save ship.
- 1952 April 26, HOBSON: minesweeper collided with aircraft carrier *Wasp* and sank during night maneuvers in mid-Atlantic; 176 lost.

Aircraft Accidents

WORLD

- 1921 Aug. 24, ENGLAND: ZR-2, British dirigible, broke in two on trial trip near Hull; 62 died.
- 1930 Oct. 5, FRANCE: British dirigible, *R-101*, crashed at Beauvais; 47 died.
- 1935 May 18, U.S.S.R.: stunt flier crashed into giant land plane, the *Maxim Gorky*; 49 killed.

- 1938 July 24, COLOMBIA: military plane crashed into grandstand during air review at Bogotá, killing 53.
- 1947 Feb. 15, COLOMBIA: Avianca airliner crashed near Bogotá; 53 killed.
- 1948 Aug. 1, ATLANTIC OCEAN: French flying boat with 52 persons aboard disappeared.

- 1949 July 12, near BOMBAY, INDIA: crash of Dutch airliner killed 13 U. S. journalists and 32 others.
- 1949 Oct. 28, AZORES: crash of French airliner killed 48.
- 1950 March 12, near CARDIFF, WALES: crash of chartered airliner killed 80.
- 1950 July 28, near PORTO ALLEGRE, BRAZIL: Brazilian airliner crash killed 49.
- 1950 Nov. 3, FRANCE: Indian airliner crashed on Mont Blanc, killing 48.
- 1950 Nov. 13, near GRENOBLE, FRANCE: Canadian plane carrying Holy Year pilgrims crashed; 58 dead.
- 1952 March 22, near FRANKFURT, GERMANY: crash of Dutch airliner killed 45 of 47 aboard.
- 1952 March 26, Moscow, U.S.S.R.: unconfirmed report said about 70 were killed in collision of Russian airliner and military plane.
- U. S. AND U. S. LINES**
- 1925 Sept. 3, CALDWELL, OHIO: U. S. dirigible *Shenandoah* broke apart, killing 14.
- 1933 April 4, NEW JERSEY COAST: U. S. dirigible *Akron* crashed into sea; 73 died.
- 1937 May 6, LAKEHURST, N. J.: German zeppelin *Hindenburg* destroyed by fire at tower mooring; 36 died.
- 1946 Oct. 3, NEWFOUNDLAND: U. S. transatlantic airliner crashed near Stephenville; all 39 aboard killed.
- 1947 May 29, NEW YORK CITY: airliner crashed attempting takeoff; 43 died.
- 1947 May 30, BAINBRIDGE, Md.: all 49 passengers and four crew members killed in crash of airliner.
- 1947 June 13, near LEESBURG, VA.: Fifty killed in crash of airliner.
- 1947 Oct. 24, BRYCE CANYON, UTAH: airliner crashed into hillside after catching fire in midair; 52 killed.
- 1948 June 17, near MOUNT CARMEL, PA.: all 43 persons aboard airliner were killed as it crashed and burned.
- 1948 Aug. 29, near WINONA, MINN.: all 36 aboard airliner killed when it crashed into bluff.
- 1949 June 7, near SAN JUAN, PUERTO RICO: crash of converted army transport into ocean killed 53; 28 rescued.
- 1949 July 12, near LOS ANGELES, CALIF.: nonscheduled airliner hit mountain, killing 35 and injuring 14.
- 1949 Nov. 1, WASH., D. C.: fighter plane rammed airliner, killing 55.
- 1950 Jan. 27, YUKON, CANADA: U. S. Air Force plane disappeared with 44 aboard.
- 1950 June 24, near ST. JOSEPH, MICH.: airliner disappeared over Lake Michigan, presumably after exploding; 58 dead.
- 1950 July 23, near MYRTLE BEACH, S. C.: 39 killed in crash of Air Force plane.
- 1950 Aug. 31, near CAIRO, EGYPT: crash of U. S. airliner killed 55, including 23 Americans.
- 1950 Dec. 19, near BAGUIO, PHILIPPINES: U. S. Air Force transport disappeared; 37 lost.
- 1951 March 23, ATLANTIC OCEAN: U. S. Air Force transport with 53 aboard disappeared.
- 1951 April 25, near KEY WEST, FLA.: Cuban airliner and U. S. Navy plane collided; 43 killed.
- 1951 June 22, near SANJOYE, LIBERIA: 40 aboard U. S. airliner died in crash.
- 1951 June 30, ROCKY MOUNTAIN NATIONAL PARK, COLO.: airliner crash killed 50.
- 1951 Aug. 24, near DECOTO, CALIF.: transcontinental airliner crash killed 50.
- 1951 Nov. 13, Mt. DORE, FRANCE: crash of "Flying Boxcar" killed 36.
- 1951 Dec. 16, ELIZABETH, N. J.: nonscheduled airliner crash killed 56.
- 1951 Dec. 29, near SALAMANCA, N. Y.: crash of nonscheduled airliner killed 26; 14 survived.
- 1951 Dec. 30, near PHOENIX, ARIZ.: Air Force transport crash killed 28, including 19 West Point cadets.
- 1952 Jan. 19, near SANDSPIT AIRPORT, B. C., CANADA: U. S. airlift plane with Korean veterans aboard fell into Pacific; 36 died, 7 survived.
- 1952 Jan. 22, ELIZABETH, N. J.: 29 killed, including former Sec. of War Robert P. Patterson, when airliner hit apartments; 7 of victims were on ground.
- 1952 Feb. 11, ELIZABETH, N. J.: third major air disaster in Elizabeth within 2 months fatally injured 33.
- 1952 April 11, near SAN JUAN, PUERTO RICO: airliner crashed into sea; 52 killed, 17 rescued.
- 1952 April 18, near LOS ANGELES, CALIF.: 29 died in crash of nonscheduled airliner.
- 1952 April 29, NORTH CENTRAL BRAZIL: airliner bound for New York crashed in jungle; 50 died.

Railroad Accidents

WORLD

- 1857 March 17, DES JARDINES CANAL, CANADA: train derailed on bridge; about 60 killed.
- 1864 June 29, near BELOEIL, CANADA: about 90 killed when train ran through open switch.
- 1879 Dec. 28, DUNDEE, SCOTLAND: train blown off Tay bridge; 73 drowned.
- 1881 June 24, near CUARTLA, MEXICO: about 200 died when train fell into river.
- 1882 July 13, near TCHERNY, RUSSIA: more than 150 killed in derailment.
- 1889 June 12, near ARMAGH, IRELAND: about 80 killed in collision.
- 1891 June 14, near BASEL, SWITZERLAND: about 100 killed in collision.
- 1915 May 22, GRETNA, SCOTLAND: two passenger trains and troop train collided; 227 killed.
- 1938 Dec. 25, near KISHINEV, RUMANIA: about 100 killed in collision.
- 1939 Dec. 22, near MAGDEBURG, GERMANY: more than 125 killed in collision; 99 killed in another wreck near Friedrichshafen.
- 1940 Jan. 29, OSAKA, JAPAN: 200 killed in collision.
- 1944 March 2, near SALERNO, ITALY: 521 suffocated when Italian train stalled in tunnel; war censorship withheld news; not revealed until 1951.
- 1949 Oct. 22, near NOWY DWOR, POLAND: more than 200 reported killed in derailment of Danzig-Warsaw express.
- 1950 April 6, near RIO DE JANEIRO, BRAZIL: train wrecked when bridge collapsed; 108 killed or missing.
- 1951 April 24, YOKOHAMA, JAPAN: fire aboard express train killed 104.
- 1951 Dec. 17, near CARNEIRO, BRAZIL: train jumped track; 53 dead.

- 1952 March 4, near RIO DE JANEIRO, BRAZIL: about 120 reported killed in collision of 2 trains.

UNITED STATES

- 1856 July 17, near PHILADELPHIA, PA.: train carrying Sunday-school children wrecked; 66 killed.
- 1876 Dec. 29, ASHTABULA, O.: 80 killed when train broke through bridge.
- 1887 Aug. 10, near CHATSWORTH, ILL.: about 80 killed in wreck.
- 1904 Aug. 7, near EDEN, COLO.: about 100 killed in wreck.
- 1910 March 1, WELLINGTON, WASH.: more than 90 killed.
- 1938 June 19, MILES CITY, MONT.: train ran through bridge; 47 killed.
- 1943 Sept. 6, PHILADELPHIA, PA.: train derailed; 79 killed.
- 1943 Dec. 16, near RENNERT, N. C.: 72 killed in derailment and collision.
- 1944 Dec. 31, near OGDEN, UTAH: 48 killed in collision.
- 1946 April 25, NAFERVILLE, ILL.: at least 47 killed in collision.
- 1950 Feb. 17, ROCKVILLE CENTRE, N. Y.: head-on crash of two commuter trains killed 30.
- 1950 Sept. 11, near WEST LAFAYETTE, O.: streamliner rammed rear of troop train. 33 National Guardsmen dead.
- 1950 Nov. 22, RICHMOND HILL, N. Y.: 79 died when one commuter train crashed into rear of another.
- 1951 Feb. 6, WOODBRIDGE, N. J.: 85 died when commuter train plunged through temporary overpass.
- 1951 Nov. 12, near EVANSTON, WYO.: transcontinental trains collided in snowstorm; more than 15 died.
- 1951 Nov. 25, near WOODSTOCK, ALA.: head-on collision killed 16.

America's Tallest Buildings

City	Building	No. of stories	Height, feet	City	Building	No. of stories	Height, feet
New York	Empire State	102	1,250	New York	10 E. 40th St.	48	621
New York	Chrysler	77	1,046	New York	New York Life	40	617
New York	60 Wall Tower	66	950	New York	Singer	47	612
New York	Bk. of Manhattan	71	925	Chicago	Board of Trade	44	605
New York	R. C. A.	70	850	New York	U. S. Court House	37	590
New York	Woolworth	60	792	Pittsburgh	Gulf	44	582
New York	City Bank	54	745	New York	Municipal	40	580
Cleveland	Terminal Tower	52	708	Cincinnati	Carew Tower	48	574
New York	500 Fifth Avenue	60	700	New York	Continental Bank	48	565
New York	Metropolitan Life	50	700	New York	Sherry-Netherland	40	560
New York	Chanin	56	680	New York	N. Y. Central	35	560
New York	Lincoln	53	673	Chicago	Pittsfield	39	557
New York	Irving Trust	50	654	Columbus	Lincoln-LeVeque Tower	46	556
New York	General Electric	50	641	Chicago	Continental	42	555
New York	Waldorf-Astoria	47	625	Detroit	Penobscot	47	551

Leading Countries in Various Riches and Resources

Source: *Encyclopaedia Britannica*.

The designation "nd" means that no data are available. In such cases, the relative rank of the nation is estimated.

Mineral Production

ANTIMONY ORE (thousands of short tons, 1950)

1. Bolivia	9.7 ¹
2. U. of So. Africa	9.1
3. China	6.6 ²
4. Mexico	6.5
5. Yugoslavia	3.5
6. Norway	3.1 ²
7. United States	2.5
8. Czechoslovakia	2.2 ²
9. Turkey	1.8
10. Greece	1.7

¹ Exports. ² 1949. ³ Estimate.

BAUXITE (thousands of short tons, 1950)

1. Surinam	2,298
2. British Guiana	1,770
3. United States	1,506
4. France	885
5. Indonesia	707
6. Hungary	660 ¹
7. U.S.S.R.	551 ¹
8. Yugoslavia	221
9. Italy	169
10. Gold Coast	128

¹ Estimate, 1949. ² 1949.

CHROMITE (thousands of short tons, 1950)

1. U.S.S.R.	550 ¹
2. U. of So. Africa	546
3. Turkey	385
4. So. Rhodesia	321
5. Philippines	276
6. Yugoslavia	110
7. Cuba	103 ²
8. New Caledonia	97
9. Japan	35
10. Sierra Leone	24 ²

¹ Estimate. ² 1949.

COAL (millions of short tons, 1951)

1. United States	575 ¹
2. U.S.S.R.	317 ¹
3. United Kingdom ²	249
4. Germany (Fed. Rep.)	131
5. Poland	89
6. France ³	76
7. Czechoslovakia	51 ⁴
8. Japan	48
9. China	42 ⁴
10. India	38

¹ Including lignite. ² Excluding No. Ireland. ³ Including Saar. ⁴ 1950; including lignite.

COPPER (thousands of short tons, smelter, 1951)

1. United States	1,019 ¹
2. Chile	396
3. No. Rhodesia	343
4. Canada	246 ²
5. U.S.S.R.	240 ³
6. United Kingdom	229 ⁴

7. Germany (Fed. Rep.)

8. Belgian Congo	219 ¹
9. Belgium	202
10. Japan	156 ²
	100 ⁶

¹ Including secondary copper from scrap. ² Refined copper. ³ 1950, estimated. ⁴ Almost all secondary. ⁵ Refined copper, including secondary.

GOLD (thousands of fine oz., refinery production, 1950)

1. U. of So. Africa ...	11,664
2. U.S.S.R.	7,000 ¹
3. Canada	4,431
4. United States	2,289
5. Australia	870
6. Gold Coast	680 ¹
7. So. Rhodesia	511
8. Mexico	408
9. Colombia	379
10. Belgian Congo	339

¹ Estimate.

IRON ORE (millions of short tons, 1951)

1. United States	130.1
2. U.S.S.R.	44.0 ¹
3. France	38.7
4. Sweden	17.7
5. United Kingdom ...	16.4
6. Germany (Fed. Rep.)	14.2
7. Luxembourg	6.2
8. Canada	4.6
9. Chile	3.5
10. India	3.3 ²

¹ 1950.

LEAD (thousands of short tons, refined, 1951)

1. United States	485.8
2. Mexico	245.5 ¹
3. Australia	223.0
4. Canada	162.4
5. Germany (Fed. Rep.)	134.8
6. U.S.S.R.	124.0 ²
7. United Kingdom ...	82.2 ³
8. Belgium	77.7
9. France	75.5 ⁴
10. Yugoslavia	66.0 ³

¹ Lead content of ores mined. ² 1950 smelter production, estimated. ³ Smelter production. ⁴ Including smelter production of secondary copper from scrap.

MANGANESE ORE (thousands of short tons, 1950)

1. U.S.S.R.	2,200 ¹
2. U. of So. Africa ...	870
3. Gold Coast	783
4. India	747
5. French Morocco ...	316
6. Brazil	179
7. Egypt	167
8. Japan	148

9. United States

10. Rumania

¹ Estimate. ² 1949.

PETROLEUM, CRUDE (millions of bbl., 1951)

1. United States	2,200
2. Venezuela	622
3. U.S.S.R.	301
4. Saudi Arabia	268
5. Kuwait	203
6. Iran	132
7. Mexico	79
8. Iraq	60
9. Indonesia	58
10. Canada	48

PIG IRON AND FERRO-ALLOYS (millions of short tons, 1951)

1. United States	70.3 ¹
2. U.S.S.R.	24.1 ²
3. France ³	12.2
4. Germany (Fed. Rep.)	11.8
5. United Kingdom ...	10.8 ⁴
6. Belgium	5.3
7. Japan	3.6
8. Luxembourg	3.5
9. Canada	2.8
10. Czechoslovakia ...	2.1 ⁴

¹ Excluding ferroalloys made in electric furnaces. ² Pig iron only. ³ Including Saar. ⁴ 1950.

SILVER (millions of fine oz., 1950)

1. Mexico	49.1
2. United States	42.3
3. Canada	22.4
4. Peru	13.1
5. Australia	11.1
6. Bolivia	6.6
7. Belgian Congo	4.5
8. Honduras	4.1
9. Japan	3.7
10. Germany (Fed. Rep.)	1.6 ²

¹ 1949.

TIN ORE (thousands of short tons, 1950)

1. Malayan Fed.	64.4
2. Indonesia	36.0
3. Bolivia	35.0
4. Belgian Congo	15.3
5. Thailand	11.6
6. U.S.S.R.	9.9 ¹
7. Nigeria	9.2
8. China	4.0 ²
9. Australia	2.8
10. Burma	1.9 ²

¹ 1949; rough estimate. ² Rough estimate.

URANIUM

No production data are available.¹

¹ The most important deposits are probably in Belgian Congo and North-

west Territories, Canada. Deposits have also been found or reported in Argentina, Australia, Bolivia, Brazil, Bulgaria, Burma, Ceylon, Chile, China (Manchuria), Czechoslovakia, England, Finland, France, Germany, Greenland, Hungary, India, Indonesia, Madagascar, Mexico, Mozambique, Nigeria, Norway, Portugal, Sardinia, South Africa, Spain, Sweden, U.S.S.R., and U.S.

ZINC (thousands of short tons, smelter, 1951)

1. United States	886
2. Belgium	221
3. Canada	219 ¹
4. Germany (Fed. Rep.)	193
5. Mexico	150 ²
6. U.S.S.R.	142 ³
7. France	98
8. Poland	96 ⁴
9. Australia	87 ⁵
10. United Kingdom	78

¹ Refined zinc. ² Zinc content of ores mined. ³ 1950; rough estimate. ⁴ 1948. ⁵ Year ending June 30, 1951.

Agriculture

BARLEY (thousands of short tons, 1951)

1. U.S.S.R.	7,800 ¹
2. China	7,300 ²
3. United States	6,100
4. Canada	6,100
5. Turkey	2,970
6. India	2,600
7. Japan	2,380
8. United Kingdom	2,020
9. Spain	1,980
10. Denmark	1,920

¹ 1950. ² 1949; 22 provinces.

BUTTER (thousands of short tons, factory, 1951)

1. United States	606
2. Germany (Fed. Rep.)	304
3. U.S.S.R.	nd
4. France	243 ¹
5. New Zealand	203 ²
6. Denmark	185
7. Australia	174 ³
8. Canada	129
9. Sweden	117
10. Germany (East)	104 ⁴

¹ 1950. ² Year ending June 30, 1951. ³ 1949. ⁴ 1948.

CATTLE (number in millions, 1951)

1. India	180.2
2. United States	84.2 ¹
3. U.S.S.R.	57.5
4. Brazil	46.4
5. Argentina	43.0
6. Pakistan	24.3 ²
7. China	18.2 ³
8. Ethiopia	18.0 ⁴
9. France	15.8 ⁵
10. Colombia	15.5 ⁶

¹ On farms only. ² 1947-48. ³ 1947-48; 22 provinces. ⁴ 1950. ⁵ 1949. ⁶ 1950.

CHEESE (thousands of short tons, factory, 1951)

1. United States	578
2. Italy	287 ¹

3. France	210 ¹
4. U.S.S.R.	nd
5. Germany (Fed. Rep.)	168
6. Netherlands	154 ²
7. New Zealand	128 ³
8. Argentina	106 ⁴
9. Denmark	85
10. Germany (East)	nd

¹ 1950. ² Including farm production. ³ Year ending June 30, 1951.

COTTON, GINNED (thousands of bales, 500 lb. gross, 1951)

1. U.S.S.R.	16,800 ¹
2. United States	15,290
3. India	2,800
4. Egypt	1,670
5. China	1,630 ²
6. Brazil	1,350
7. Mexico	1,330
8. Pakistan	1,290
9. Turkey	650
10. Argentina	500

¹ 1950. ² 1949.

FORESTS (millions of acres, latest data available, 1952)¹

1. U.S.S.R.	2,500
2. Canada	837
3. United States	624
4. Fr. West Africa	421
5. Fr. Eq. Africa	377
6. Indonesia	299
7. Belgian Congo	250
8. Anglo-Egy. Sudan	233
9. China ²	202
10. Colombia	178

¹ Of present or potential value. ² Excluding Formosa.

HOGS (number in millions, 1950)

1. United States	65.0 ¹
2. China	59.5 ²
3. U.S.S.R.	24.1
4. Brazil	23.9 ³
5. Germany (Fed. Rep.)	11.9 ⁴
6. Poland	9.9
7. France	6.8
8. Mexico	6.0 ⁵
9. Canada	5.9 ⁶
10. Germany (East)	5.7

¹ 1951. ² 1947-48; 22 provinces. ³ 1948-49.

HORSES (number in millions, 1950)

1. U.S.S.R.	13.7
2. Argentina	7.2 ¹
3. Brazil	6.9 ²
4. United States	4.8 ³
5. Poland	2.8
6. Mexico	2.5 ⁴
7. France	2.4
8. China	2.0 ⁵
9. Germany (Fed. Rep.)	1.6
10. Canada	1.5 ⁶

¹ 1946-47. ² 1948. ³ 1951; on farms only. ⁴ 1949. ⁵ 1948; 22 provinces. ⁶ 1950.

LAND, ARABLE (millions of ac., including orchards; latest data available, 1952)

1. U.S.S.R.	556
2. United States	455

3. India	306
4. China ¹	225
5. Belgian Congo	121 ²
6. Canada	92
7. Argentina	74
8. France	52
9. Pakistan	52
10. Spain	47

¹ Excluding Formosa. ² Including inland water.

MEAT (thousands of short tons, 1951)¹

1. United States	7,927 ²
2. U.S.S.R.	nd
3. France	2,115 ³
4. Brazil	1,487 ⁴
5. Germany (Fed. Rep.)	1,478
6. Poland	1,380 ⁵
7. United Kingdom	1,311
8. Argentina	1,280 ⁶
9. Australia	1,131 ⁷
10. Denmark	645 ⁸

¹ Beef, veal, mutton, lamb, pork, goat meat. ² Inspected slaughtering only. ³ 1950. ⁴ 1950; inspected slaughtering only. ⁵ Year ending June 30, 1951; incl. farm slaughter. ⁶ Incl. farm slaughter; beef and pork only.

MILK (millions of U. S. gal., 1951)

1. United States	13,435
2. U.S.S.R.	nd
3. Germany (Fed. Rep.)	3,890
4. France	3,300 ¹
5. United Kingdom	2,151 ²
6. Canada	1,905
7. Australia	1,453 ³
8. Denmark	1,342
9. Netherlands	1,194 ⁴
10. Germany (East)	nd

¹ 1949. ² Milk sold through Milk Marketing Schemes. ³ Year ending June 1951. ⁴ Delivered by farmers.

OATS (thousands of short tons, 1951)

1. United States	21,020
2. U.S.S.R.	12,000 ¹
3. Canada	8,370
4. France	3,960
5. Germany (Fed. Rep.)	3,120
6. United Kingdom	2,780
7. Poland	2,340 ²
8. Germany (East)	1,250 ³
9. Denmark	910
10. Sweden	800

¹ 1950.

POTATOES (thousands of short tons, 1951)

1. U.S.S.R.	78,000
2. Poland	40,500
3. Germany (Fed. Rep.)	26,500
4. France	14,800
5. Germany (East)	11,980
6. United States	10,050
7. United Kingdom	8,810
8. Czechoslovakia	7,280
9. Netherlands	4,130
10. Spain	3,630

RICE (thousands of short tons, 1951-52 season)	SHEEP (number in millions, 1950)	WHEAT (millions of bu., 1951)
1. China 49,500	1. Australia 115.6 ¹	1. U.S.S.R. 1,110 ¹
2. India 35,000 ¹	2. U.S.S.R. 64.8 ²	2. United States 987
3. Pakistan 13,870	3. Argentina 50.9 ³	3. China 903 ²
4. Japan 12,500	4. India 38.9	4. Canada 562
5. Indonesia 10,850 ¹	5. New Zealand 34.8 ¹	5. France 260
6. Thailand 7,250	6. U. of So. Africa 31.9 ⁴	6. Italy 250
7. Malayan Fed. 7,140 ¹	7. United States 31.5 ¹	7. India 232
8. Indo-China 6,250	8. Uruguay 23.4 ¹	8. Turkey 206
9. Burma 5,900	9. Spain 23.0	9. Spain 176
10. Brazil 3,300 ¹	10. Turkey 22.1	10. Pakistan 148
¹ 1950-51.	¹ 1951. ² 1948. ³ 1947. ⁴ 1949.	¹ 1950. ² 1949.

RUBBER (thousands of short tons, 1951)	SUGAR BEETS (thousands of short tons, 1951)	WOOL (thousands of short tons, greasy basis, 1951)
1. United States 945 ¹	1. U.S.S.R. 26,730 ¹	1. Australia 543
2. Indonesia 851	2. United States 10,700	2. Argentina 220
3. Malayan Fed. 677	3. France 9,800	3. New Zealand 190
4. Thailand 122 ²	4. Germany (Fed. Rep.) 7,700	4. United States 138
5. Ceylon 117	5. Poland 7,600	5. U.S.S.R. 135 ¹
6. Canada 70 ¹	6. Germany (East) .. 5,900 ¹	6. U. of So. Africa 120
7. U.S.S.R. nd	7. Italy 6,200	7. Uruguay 95
8. Indo-China 53	8. United Kingdom .. 5,100	8. Spain 43 ²
9. Sarawak 47	9. Czechoslovakia 4,900 ²	9. United Kingdom 41 ²
10. Liberia 40 ²	10. Netherlands 2,700	10. China 39 ¹
¹ Synthetic only. ² Exports.	¹ 1950. ² 1948.	¹ 1949. ² 1950.

Industry, Commerce, Income, Communications

AIRLINES (millions of passenger-miles, monthly average, 1951)	9. Sweden 19.4 ²	5. Turkey 157
1. United States 1,097	10. Norway 17.3 ²	6. Denmark 153
2. United Kingdom .. 90	¹ Excluding No. Ireland. ² Including private generation of electricity.	7. Netherlands 150
3. U.S.S.R. nd	EMPLOYMENT INDEX (non-agricultural, 1951) (1948 = 100)	8. Norway 140
4. Australia 86 ¹	1. Germany (Fed. Rep.) 112	9. Italy 135
5. France 65 ²	2. Australia 111	10. Ceylon 135
6. Canada 57	3. Luxemburg 110 ¹	¹ Data on U.S.S.R. and satellites not included. ² Excluding Marshall Plan imports. ³ Year ending June 30, 1951.
7. Netherlands 46	4. Canada 109	INCOME, PER CAPITA (in dollars, 1949)
8. Mexico 45	5. U. of So. Africa 103 ²	1. United States 1,453 ¹
9. India 26	6. U.S.S.R. nd	2. Switzerland 849
10. Colombia 16 ¹	7. Norway 106	3. Sweden 780
¹ 1950. ² Air France only.	8. United States 105	4. United Kingdom .. 773
	9. United Kingdom ³ ... 104	5. Denmark 689
	10. France 104 ⁴	6. Norway 587

ALUMINUM (thousands of short tons, 1950)	¹ Wage earners only. ² Excluding commerce and services. ³ Excluding No. Ireland. ⁴ Excluding some public services.	EXPORT INDEX (1951) (1948 = 100) ¹	INDUSTRIAL PRODUCTION INDEX (1951) (1948 = 100) ¹
1. United States 718.6		1. Netherlands 242	1. Germany (Fed. Rep.) 228
2. Canada 394.6		2. Austria 204	2. Japan 196
3. U.S.S.R. 210.0 ¹		3. Japan 195	3. Austria 178
4. France 67.2		4. Denmark 192	4. Greece 171 ²
5. Norway 51.4		5. France 161	5. Italy 144
6. Italy 40.9		6. Norway 161	6. Finland 129
7. United Kingdom ... 33.0		7. Finland 159	7. Netherlands 128
8. Germany (Fed. Rep.) 29.7		8. Spain 157	8. France 125
9. Japan 27.3		9. Philippines 149	9. Denmark 121 ²
10. Switzerland 23.1		10. Italy 147	10. Luxemburg 121
¹ Rough estimate.		¹ Data on U.S.S.R. and satellites not included.	¹ Data on U.S.S.R. and satellites not included. ² Excluding mining.

ELECTRICITY (billions of kwh, 1951)	IMPORT INDEX (1951) (1948 = 100) ¹	MERCHANT FLEETS (millions of gross tons, 1951) ¹
1. United States 370.0	1. Austria 212 ²	1. United States 25.8
2. U.S.S.R. 104.0	2. Indo-China 184	2. Brit. Commonwealth .. 19.1
3. United Kingdom ¹ ... 60.0	3. Malayan Fed. 181	
4. Canada 57.4	4. Australia 159 ²	
5. Germany (Fed. Rep.) 51.3 ²		
6. Japan 41.1		
7. France 36.0 ²		
8. Italy 29.0 ²		

3. Norway	5.3
4. Panamá	3.5
5. France	3.0
6. Netherlands	2.9
7. Italy	2.6
8. Sweden	1.9
9. Japan	1.7
10. U.S.S.R.	1.5

¹ Ships of 1,000 gross tons or more.**MOTOR VEHICLES** (production in thousands, 1951)

1. United States	6,766 ¹
2. United Kingdom ..	734
3. France	445
4. Canada	414 ²
5. Germany (Fed. Rep.)	364
6. Italy	148
7. U.S.S.R.	nd
8. Japan	38
9. Czechoslovakia	25 ³
10. Australia	23 ⁴

¹ Factory sales. ² Factory shipments. ³ 1940. ⁴ 1947.**RAILWAYS** (millions of metric freight-tons carried, monthly average, 1951)

1. United States	211.8 ¹
2. U.S.S.R.	nd
3. United Kingdom ² ..	24.1
4. Germany (Fed. Rep.)	21.4
5. France	14.7 ³
6. Canada	13.4
7. Poland	12.3 ⁴
8. Japan	11.7 ⁵
9. India	10.5 ¹
10. Belgium	6.0 ⁶

¹ Class I railways only. ² Excluding Northern Ireland. ³ State railways only. ⁴ 1950; state railways only. ⁵ Carload lots only.**STEEL, CRUDE** (thousands of short tons, 1951)

1. United States	104,900
2. U.S.S.R.	34,760
3. United Kingdom ..	17,500
4. Germany (Fed. Rep.)	14,900
5. France ¹	13,800
6. Japan	7,200
7. Belgium	5,500
8. Canada	3,600
9. Luxemburg	3,400

10. Italy	3,400
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¹ Including Saar.**TELEPHONES** (number per 100 population, 1951)

1. United States	28.1
2. Sweden	23.9
3. Canada	20.8
4. New Zealand	19.1
5. Switzerland	19.1
6. Denmark	16.9
7. Iceland	14.4
8. Australia	13.9
9. Norway	13.8 ¹
10. United Kingdom	10.7

¹ 1950.**Human Resources****BIRTH RATE, HIGHEST ANNUAL** (per 1,000 population, 1951)¹

1. U.S.S.R.	nd
2. Mexico	44.6
3. China	nd
4. India	27.1 ²
5. Canada ³	27.1
6. Thailand	27.1 ⁴
7. Japan	25.6
8. U. of So. Africa	25.6 ⁵
9. United States	24.3
10. Australia	23.3 ⁶

¹ Following smaller countries not included: Guatemala, 52.1; Costa Rica, 49.0; Venezuela, 45.6; Dominican Republic, 42.4; Ceylon, 40.2 (1950); Puerto Rico, 37.2; Panamá, 33.0 (1949); Israel, 32.7 (Jewish population only); Chile, 32.3; Peru, 25.8; Portugal, 24.5; New Zealand, 24.4 (excluding Maoris); Finland, 22.8. ² Registration area only. ³ Excluding Yukon and Northwest Territories. ⁴ 1949. ⁵ European population only. ⁶ 1950; excluding full-blooded aboriginals.**DEATH RATE, LOWEST ANNUAL** (per 1,000 population, 1951)¹

1. Netherlands	7.6
2. Norway	8.3
3. Denmark	8.8
4. Canada ²	9.0
5. U. of So. Africa	9.2 ³
6. Australia	9.6 ⁴
7. United States	9.7
8. Sweden	9.9
9. Japan	10.0

10. Italy	10.3
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¹ Following smaller countries not included: Israel, 6.4 (Jewish population only); Panamá, 7.1 (1949); Peru, 9.4; New Zealand, 9.6 (excluding Maoris); Puerto Rico, 9.9; Finland, 10.0; Dominican Republic, 10.2. ² Excluding Yukon and Northwest Territories. ³ European population only. ⁴ 1950; excluding full-blooded aboriginals.**Military Forces** (estimates)**AIR FORCES** (planes, 1950)

1. United States	30,000
2. U.S.S.R.	20,000
3. United Kingdom ..	6,000
4. Turkey	1,000
5. France	800
6. Spain	nd
7. Poland	nd
8. Yugoslavia	600
9. Sweden	600
10. Portugal	575 ¹

¹ 1949.**ARMED FORCES** (army, air, navy, in thousands, 1951)

1. U.S.S.R.	4,500
2. China	4,000 ¹
3. United States	3,250 ²
4. United Kingdom	730
5. France	725
6. Yugoslavia	600
7. Turkey	500
8. Poland	500
9. India	450 ³
10. Spain	450

¹ Communist China; Nationalist forces on Formosa estimated at more than 500,000. ² July 1, 1951. ³ 1948.**NAVIES** (number of war-ships, 1951)¹

1. United States	535
2. United Kingdom	140
3. U.S.S.R.	101
4. Spain	24
5. France	22
6. Sweden	20
7. Argentina	19
8. Canada	14
9. Australia	14
10. Brazil	12

¹ Excluding submarines and frigates and escort types; estimated number of submarines, Dec. 1951: U.S.S.R., 370; U. S., 194; United Kingdom, 53; Sweden, 24; Turkey, 11; France, 10; Norway, 8.**Famous Ship Canals of the World**

Name	Location	Year opened	Length (mi.)	Width (ft.)	Depth (ft.)	Locks
Albert	Belgium	1939	80.0	53.0	16.5	6
Amsterdam-Rhine	Netherlands	1952	45.0	164.0	41.0	3
Beaumont-Port Arthur	United States	1916	40.0	200.0	34.0	..
Chesapeake and Delaware	United States	1927	19.0	250.0	27.0	..
Houston	United States	1914	50.0	200.0	33.0	..
Kiel	Germany	1895	53.3	144.0	37.0	4
Panama	Canal Zone	1914	50.0	110.0	41.0	12
Sault Ste. Marie	Canada	1895	1.2	60.0	16.8	1
Sault Ste. Marie	United States	1915	1.6	80.0	25.0	4
Suez	Egypt	1869	87.5	197.0	34.0	..
Weiland	Canada	1981	27.6	80.0	25.0	8

CHRONOLOGY



GREAT HISTORICAL EVENTS

Compiled by

ENCYCLOPAEDIA BRITANNICA

Before the Christian Era—(B.C.)

- 5000—4000—Advanced stage of civilization in Egypt and Mesopotamia.
- 2000 (?)—Indo-Europeans invade northern Greece.
- 1700—1300—Rivalry between Assyria and Babylonia for control of western Asia.
- 1300 (?)—Moses leads Jews out of Egypt.
- 1194—1184 (?)—Trojan War: Greeks emerge supreme after legendary siege of Troy.
- 753—Legendary founding of Rome by Romulus.
- 500—400—Rise of Maya civilization in Mexico.
- 499—479—Persian Wars: Persians, in expeditions against Greece, fail in efforts at subjugation.
- 431—404—Peloponnesian War: Spartans, under Lysander, take Athens to become supreme in Greece.
- 390—Barbarian Gauls sack Rome.
- 340—Rome assumes ascendancy over towns of Italy.
- 334—330—Alexander the Great conquers Greece, Persia, Egypt, and part of India.
- 264—146—Punic Wars: Romans, in campaigns against Carthaginians, seize Sicily and Spain and destroy Carthage (later rebuilt by Romans, destroyed by Arabs in 698 A.D.)
- 58—51—Caesar defeats Gauls and Germans.
- 45—Caesar becomes dictator for life.
- 44—Caesar assassinated; Mark Antony seizes Rome.
- 31—Octavius defeats Antony, conquers Egypt.
- 30—Suicides of Antony and Cleopatra.
- 27—Octavius becomes Emperor Augustus; Roman Empire established.
- 4 (?)—Birth of Christ (according to many historians).

The Christian Era—(A.D.)

- 29 (?)—Crucifixion of Christ.
- 78—Agricola conquers Britain.
- 247—Goths begin invasion of Europe.
- 306—Constantine the Great, first Christian Emperor, defeats the Franks.
- 330—Constantine makes Constantinople the seat of the Roman Empire.
- 400—Goths under Alaric invade Italy.
- 410—Sack of Rome by Alaric.
- 451—Battle of Châlons: Huns under Attila defeated by Romans.
- 476—Fall of Rome; traditional date dividing ancient and medieval history.
- 622—Hegira (flight of Mohammed from Mecca). After Mohammed's death in 632, Moslems sweep over much of western Asia and northern Africa.
- 711—Moslems cross into Spain.
- 732—Charles Martel defeats Moslems in Battle of Tours (or Poitiers).
- 800—Charlemagne crowned first emperor of Holy Roman Empire; Christianity established over much of Europe.
- 1066—Battle of Hastings: William the Conqueror successfully invades England.
- 1096—1291—The Crusades: European Christians, in seven periods of conflict, oppose the Moslems and Turks, developing commerce and extending Christianity.
- 1206—Mongolian Empire established by Genghis Khan.
- 1215—Magna Carta proclaimed.
- 1260—92—Kublai Khan establishes sovereignty in China.
- 1338—1453—Hundred Years' War: England loses lands in France.
- 1431—Joan of Arc burned at the stake.
- 1453—Turks capture Constantinople.
- 1455—85—Wars of the Roses: House of York against House of Lancaster; Richard III slain at Battle of Bosworth Field (1485); Tudor line started by Henry VII.

- 1492—Moors driven out of Spain. [Christopher Columbus discovers America (West Indies).]
- 1517—Beginning of Reformation in Germany.
- 1558-1603—Elizabeth is queen of England.
- 1571—Battle of Lepanto: Don John of Austria routs Turkish fleet.
- 1588—Spanish Armada destroyed by British.
- 1607—Jamestown, Va., settled by English under Capt. John Smith.
- 1618-48—Thirty Years' War: England, Holland, France, Sweden and German Protestants against Spain, Italy and German Catholics; Peace of Westphalia ends conflict, Alsace going to France, Swiss independence being recognized, and German secularized states being given religious freedom.
- 1619—First representative assembly in America at Jamestown, Va. [First Negro slaves land at Jamestown from Dutch ship.]
- 1620—Pilgrims land at Plymouth Rock.
- 1642-52—Great Rebellion: civil wars in England lasting from 1642 to 1646 and from 1648 to 1652; Charles I executed; Oliver Cromwell establishes commonwealth.
- 1644—Manchu Dynasty established in China, lasting until 1912.
- 1660—Monarchy restored in England under Charles II.
- 1665—The Great Plague in London.
- 1704—British capture Gibraltar from Spain.
- 1707—Scotland and England united.
- 1709—Battle of Poltava: Russians under Peter the Great defeat Swedes under Charles XII.
- 1756-63—Seven Years' War: France, Austria, Sweden, and Russia against England and Prussia; Clive defeats French at Battle of Plassey (1757), marking beginning of British supremacy in India; England wins Canada; Prussia retains Silesia. (American phase known as French and Indian War—1754-60).
- 1765—Stamp Act passed by British Parliament; Stamp Act Congress in New York threatens boycott unless repealed.
- 1770—The Boston Massacre (March 5).
- 1773—Boston Tea Party (Dec. 16).
- 1774—First Continental Congress, Philadelphia (Sept. 5).
- 1775-83—American Revolution. Outstanding events: 1775—Battle of Lexington-Concord (April 19). Battle of Bunker Hill (June 17). 1776—Declaration of American Independence (July 4). Battle of Long Island (Aug. 27). 1777—Congress adopts Stars and Stripes (June 14). Battle of Brandywine (Sept. 11). Battle of Germantown (Oct. 4). Burgoyne surrenders at Saratoga (Oct. 17). 1778—Battle of Monmouth (June 28). Capture of Kaskaskia (July 4). 1779—Battle of Savannah (Oct. 8-9). 1780—Major André hanged as spy (Oct. 2). Battle of Kings Mountain (Oct. 7). 1781—Battle of Cowpens (Jan. 17). Battle of Yorktown (Sept. 28-Oct. 19) and British surrender by Lord Cornwallis. 1783—Peace treaty signed by U. S. and Great Britain (Sept. 3).
- 1787—U. S. Constitution drawn up at Philadelphia (May 14).
- 1789—First U. S. Congress meets in New York City (Mar. 4); first session begins (April 6). Washington elected first President (April 6) and is inaugurated (April 30).
- 1789-99—French Revolution. Outstanding events: 1789—Bastille destroyed (July 14). 1792—War with Prussia. France declared republic (Sept. 21). 1793—Louis XVI and Queen Marie Antoinette beheaded. Beginning of Reign of Terror. 1795—Napoleon Bonaparte heads army. Peace with Prussia. Directory established (Oct. 27). (Revolution merges into Napoleonic Wars.)
- 1792—Trial of Warren Hastings, British administrator in India.
- 1796-1815—Napoleonic Wars. Outstanding events: 1796—War in Italy. 1798—Campaign in Egypt. 1799—Napoleon made first Consul of French republic. 1804—Napoleon crowned emperor (Dec. 2). 1805—Nelson defeats French in Battle of Trafalgar (Oct. 21). French defeat Russians and Austrians in Battle of Austerlitz (Dec. 2). 1812—French defeat Russians in Battle of Borodino (Sept. 7). 1813—French defeated in Battle of Leipzig (Oct. 16-19). 1814—Napoleon abdicates (April 11), sent to Elba. Louis XVIII becomes King of France. First Treaty of Paris (May 30). 1815—Napoleon flees Elba (Feb. 26). Conclusion of Congress of Vienna (June 9). Napoleon defeated in Battle of Waterloo (June 18). Second Treaty of Paris (Nov. 20).
- 1800—Britain and Ireland united.
- 1803—Louisiana Purchase.
- 1804-06—Journey of Lewis and Clark overland to U. S. Northwest.
- 1812-14—War of 1812. Outstanding events: 1812—Declaration of War by U. S.

- (June 18). Fort Dearborn (Chicago) Massacre by Indian allies of British (Aug. 15). Detroit surrenders to British (Aug. 15). 1814—British burn White House at Washington. Battle of Plattsburgh won by Americans (Sept. 11). U. S. signs treaty with Britain at Ghent, Belgium (Dec. 24). 1815—Battle of New Orleans (Jan. 8). (Slowness of communications was responsible for continuation of hostilities after treaty.)
- 1815—Holy Alliance formed (Sept. 26) by Russia, Austria and Prussia; intended to regulate government according to Christianity but was used for repressing political liberty.
- 1819—Florida purchased from Spain.
- 1820—Missouri Compromise permits slavery in that state.
- 1823—Monroe Doctrine proclaims that no European power may seize territory or set up a government on American continents.
- 1830—Revolt in France; Charles X flees; Louis Philippe becomes king.
- 1832—South Carolina nullifies U. S. protective tariff law.
- 1836—Battle of the Alamo (March 6): Texas declares its independence from Mexico.
- 1846-48—Mexican War: boundary dispute between U. S. and Mexico; by Treaty of Guadalupe Hidalgo (1848), Mexico cedes Calif., Nev., and Utah to U. S.; Texas boundary set at Rio Grande.
- 1848—French depose Louis Philippe, set up Second Republic under Louis Napoleon. *Communist Manifesto* issued by Marx and Engels.
- 1852—Louis Napoleon sets up second empire and takes title of Napoleon III.
- 1853-56—Crimean War: Russia loses claim to Greek Christians under Turkish flag.
- 1857—Dred Scott decision of U. S. Supreme Court (March 6) holds that a Negro slave is not a citizen.
- 1858—Lincoln-Douglas debates in Illinois.
- 1859—John Brown's raid on Harpers Ferry (Oct. 16).
- 1860—South Carolina secedes (Dec. 20).
- 1861—Seceding states proclaim Confederacy; Jefferson Davis named president (Feb. 9). *First Italian parliament* (Feb. 18); Victor Emmanuel II made king. *Serfdom abolished in Russia.*
- 1861-65—American Civil War. Outstanding events: 1861—Battle of Bull Run (July 21). 1862—Battle of *Monitor* and *Merrimac* (March 9). Battle of Shiloh (April 6-7). Seven Days battle (June 26-July 2). Battle of Antietam Creek (Sept. 16-17). 1863—Lincoln's Emancipation Proclamation (Jan. 1). Battle of Chancellorsville (May 2-4). Battle of Gettysburg (July 1-3). Grant captures Vicksburg (July 4). Battle of Chickamauga (Sept. 19-20). Battle of Lookout Mountain (Nov. 24-25). 1864—Battle of Wilderness (May 5-6). Battle of Spotsylvania (May). Sherman's march through Georgia (ended Dec. 20). 1865—Lee surrenders at Appomattox (April 9).
- 1864—International Working Men's Association (First International) founded in London.
- 1865—Lincoln shot by John Wilkes Booth (April 14, dies April 15).
- 1867—Alaska bought from Russia by U. S.
- 1869—Central Pacific and Union Pacific rail lines joined near Ogden, Utah (May 10), completing first transcontinental railroad.
- 1870-71—Franco-Prussian War: ends with Treaty of Frankfurt (May 10, 1871).
- 1873—Financial panic in New York.
- 1876—Battle of the Little Big Horn in Montana: massacre of General Custer's forces by the Sioux (June 25).
- 1877-78—Russo-Turkish War: power of Turkey in Europe broken; redivision of southeastern Europe at Congress of Berlin (June 13-July 13, 1878).
- 1881—Alexander II of Russia assassinated by nihilists (March 13). *President Garfield fatally shot* (July 2, dies Sept. 19).
- 1883—Pendleton Act establishes Civil Service Commission and merit system.
- 1889—Second International formed in Paris.
- 1894-95—Chinese-Japanese War: Japan wins Formosa.
- 1898—Spanish-American War. Outstanding events: U. S. battleship *Maine* blown up in Havana harbor (Feb. 15). Dewey destroys Spanish fleet at Manila (May 1). Charge of San Juan Hill (July 1). Cervera's fleet destroyed off Santiago, Cuba, by U. S. ships (July 3). Treaty of Paris signed (Dec. 10) with Spain ceding the Philippines and Puerto Rico.
- 1899-1902—Boer (South African) War: resistance of Dutch to British government in Transvaal; Boers defeated and sign peace treaty at Pretoria (May 31, 1902).
- 1899—Filipinos revolt (Feb. 4); U. S. forces capture rebel leader, Aguinaldo (March 23, 1901).
- 1900—Boxer uprising in China against foreigners and Chinese Christians; foreign legations at Peking besieged.

- 1901—President McKinley fatally shot (Sept. 6, dies Sept. 14).
- 1904-05—Russo-Japanese War: result of conflicts in Manchuria; Port Arthur surrenders to Japanese (Jan. 2, 1905); Treaty of Portsmouth (Sept. 5, 1905).
- 1912—China becomes republic (Feb. 12).
- 1912-13—Balkan Wars: Bulgaria, Serbia, Greece, and Montenegro allied successfully against Turkey; later Bulgaria attacks Serbia and Greece and is defeated.
- 1914—U. S. troops land at Veracruz, Mexico, and occupy city for several months. Archduke Francis Ferdinand of Austria assassinated (June 28) at Sarajevo by Serbs, precipitating World War I.
- 1914-18—World War I: Central Powers (Austria-Hungary, Germany, Bulgaria and Turkey) against the Allies (United States, Great Britain, France, Russia, Belgium, Serbia, Greece, Rumania, Montenegro, Portugal, Italy and Japan). Outstanding events: 1914—Austria declares war on Serbia (July 28). Germany declares war on Russia (Aug. 1) and France (Aug. 3). Germans invade Belgium (Aug. 4). Britain declares war on Germany (Aug. 4). Germans defeat Russians at Tannenberg, East Prussia (Aug. 31). First Battle of the Marne (Sept. 6-9). 1915—German u-boat blockade of Great Britain begins. Dardanelles campaign against Turkey fails. 1916—Battle of Jutland (May 31). Battles of the Somme (July-Nov.). Germans turned back at Verdun (Sept. 3). Rumania overrun by Central Powers; fall of Bucharest (Dec. 6). 1917—Germany begins unrestricted submarine warfare. U. S. declares war (April 6). First U. S. troops in France (June 26). British capture Jerusalem (Dec. 9). Battle of Caporetto ends (Dec. 19). 1918—President Wilson's Fourteen Points of Peace speech (Jan. 8). Battle of the Somme (March 21-April 6). Battle of the Aisne (May 27-June 5). Second Battle of the Marne (July 15-Aug. 4). U. S. troops take St. Mihiel (Sept. 13). Battle of the Meuse-Argonne (Sept. 20-Nov. 11). Allies break Hindenburg line (Oct. 5). Armistice signed (Nov. 11).
- 1917—First phase of Russian Revolution (Mar.); Tsar abdicates (Mar. 15) and is imprisoned; second phase of Revolution (Nov. 7); provisional government of Kerensky is overthrown. Balfour declaration (Nov. 2) on Jewish homeland in Palestine.
- 1918—Tsar Nicholas II and his family shot by Bolsheviks (July 16).
- 1919—The Third International (organization of Communist parties of all nations) founded at Moscow (March). Treaty of Versailles signed (June 28); U. S. Senate refuses to ratify treaty (Nov. 19).
- 1920—League of Nations comes into existence (Jan. 10). Prohibition begins (Jan. 20). Woman suffrage amendment ratified (Aug. 26).
- 1921—Resolution declaring peace with Germany and Austria signed by Harding (July 2). Conference for limitation of armaments meets in Washington, D. C. (Nov. 12).
- 1922—Irish Free State established (Jan. 15). Treaty for limitation of naval armaments concluded at Washington by U. S., Britain, France, Italy and Japan (Feb. 6). First session of World Court (June 15). Fascist coup in Italy; Mussolini forms cabinet (Oct. 31).
- 1923—French begin occupation of Ruhr (to 1925). World Court Protocol rejected by U. S. Senate (Mar. 3). Munich beer hall putsch led by Hitler put down (Nov. 8-9).
- 1924—Teapot Dome oil scandals. Death of Lenin (Jan. 21). Dawes Plan presented (April 9) to stabilize German currency and regulate annual payments of reparations.
- 1925—Bryan and Darrow in Scopes evolution trial in Tennessee (July). Locarno Conference held (Oct.) to insure peace, preserve boundaries.
- 1926—World Court membership approved by U. S. (Jan. 27) with reservations; reservations rejected by Court. General strike in Britain (Apr.-Dec.).
- 1927—Record floods in Mississippi, tributary valleys (Apr.-May). Lindbergh flies solo across Atlantic (May 20-21). Sacco, Vanzetti executed (Aug. 23).
- 1928—Kellogg Peace Pact signed (Aug. 27); 15 nations outlaw war. First Five-Year Plan begun in U.S.S.R. (Oct. 1).
- 1929—Lateran Treaty signed (Feb. 11), establishing Vatican City State. Young Plan completed (June 7) for payment of German reparations. New York stock market collapses (Oct. 29); depression begins.
- 1930—Navy pact signed by U. S., Britain, Japan, France and Italy (April 22). Hawley-Smoot Tariff signed by Hoover (June 17).
- 1931—Alfonso XIII of Spain abdicates (Apr. 14). Hoover proposes 1-year war-debt moratorium (June 6). Japan seizes Mukden, Manchuria (Sept. 19).
- 1932—Japanese invade Shanghai (Jan. 29). Bonus Army marches on Washington, D. C. (June-July). House votes 3-2 beer (Dec. 21).

HEADLINES OF THE YEARS, 1933-1951

Compiled by

THE NEW YORK HERALD TRIBUNE

1933

Roosevelt was in, Hoover out. Roosevelt was fitting Cabinet pieces together, making plans. Hoover was packing his papers. In the long pause from November to March, the rolls of jobless mounted and the nation grew more jittery. From Germany, increasingly turbulent and truculent, the name Adolf Hitler came more and more into the news. It was the year of the NRA and the Blue Eagle and the year Prohibition ended. "The only thing we have to fear is fear itself," said Roosevelt in his inaugural speech.

Jan. 30 Hitler made Chancellor of Germany by Hindenburg.

Feb. 15 F.D.R. escapes death as assassin's bullet fells Mayor Cermak, 59, of Chicago at Miami (dies Mar. 6). Police seize Giuseppe Zangara, fanatic.

27 Reichstag building set afire; Nazis blame Communists.

Mar. 4 Roosevelt inaugurated.

5 Roosevelt proclaims bank holiday; bans hoarding; embargoes gold.

12 President Roosevelt broadcasts first "Fireside Chat."

14 Congress votes 3.2 beer.

15 Exchanges reopen; stocks up.

21 Roosevelt offers plan for 250,000 Civilian Conservation Corps jobs.

23 Reichstag confers blanket powers on Hitler for 4 years.

28 Nazis boycott Jews; order labels on all Jewish stores.

April 19 U. S. goes off gold standard.

May 27 Century of Progress Exposition at Chicago opens.

June 7 Italy, Britain, France, and Germany sign 4-power pact at Rome for ten-year peace.

July 12 Blanket industrial code sets wages at minimum of 40 cents an hour.

Aug. 7 Reich scorns Anglo-French notice to stay out of Austria.

Sept. 13 200,000 New Yorkers participate in 10-hour parade up Fifth Avenue for NRA

Oct. 14 Hitler bolts League of Nations.

17 Dr. Albert Einstein, refugee from Germany, arrives in United States, settles in Princeton, N. J.

Nov. 7 F. H. LaGuardia elected New York Mayor.

12 Hitler wins 93.4 per cent vote in referendum on Nazi foreign policy.

17 U. S. and Russia resume full relations (as of 11:50 P.M., Nov. 16); Soviet gives list of guaranties including pledge "to refrain from propaganda against the policies or social order of the U. S."

Dec. 5 Prohibition ends in U. S. as Utah, 36th state, ratifies Repeal.

1934

The New Deal delved into the alphabet and came up with multi-lettered agencies. Mr. Roosevelt's resonant voice roused and reassured the nation in fireside chats. The Blue Eagle flapped. People talked about Section 7-A, codes, NRA, CCC, farm relief, cracking down on chiselers, and boondoggling. The little guy (it seemed) was coming into his own at last. Prohibition was finished. The nation enjoyed its first legal alcoholic holiday in fifteen years. New York had double cause to celebrate: Tammany was out in the cold for the first time since 1918.

Jan. 10 Van der Lubbe, Dutch communist, beheaded for Reichstag fire.

11 6 Navy planes reach Hawaii from California in 24¾ hours.

31 Dollar cut to 59.06 cents (gold value).

Feb. 12 France paralyzed by general strike. Civil war in Austria, over 500 dead.

17 Britain, France, Italy send note to Hitler backing Dollfuss government in Austria.

19 Nazis send ultimatum to Dollfuss.

Mar. 15 Samuel Insull, reportedly disguised as woman, flees Athens to evade extradition to U. S.

28 Roosevelt gets first setback in Congress as his veto of independent offices appropriation bill is overridden.

April 13 4,700,000 U. S. families on relief, Hopkins reports.

30 U. S. rejects Japanese claim of hegemony in China.

May 28 Quintuplets born to Mrs. Oliva Dionne, at Corbell, Ont.

- June 14 Germany declares six-months moratorium on all foreign debts.
- 30 Hitler "purge" kills Ernst Roehm and score of other Nazi leaders.
- July 24 Heat, drought blanket Midwest "dustbowl"; at least 700 dead.
- 25 Engelbert Dollfuss, 42, Austrian Chancellor, assassinated.
- Aug. 2 Hindenburg, 86, dies; Hitler becomes absolute dictator of Germany.
- 9 U. S. nationalizes silver, to pay 50.01 cents an ounce.
- 26 Hitler asks return of Saar, peace with France.
- 31 Huey Long enters New Orleans with troops; plans to investigate political enemies.
- Sept. 20 Bruno Richard Hauptmann arrested for Lindbergh kidnap-slaying.
- 25 Gen. Hugh Johnson resigns as NRA administrator.
- Oct. 6 Catalonia secedes in Spain; Reds riot, civil war threatens.
- 9 Alexander I of Yugoslavia, 45, and French Foreign Minister Barthou assassinated at Marseilles by Croatian.
- Nov. 4 Charles Kingsford-Smith files first eastward Pacific flight from Honolulu to California in 14 hours, 59 minutes.
- Dec. 3 France and Germany sign Saar Treaty at Rome.
- 5 Russia "purges" [executes] 66 for plotting against Stalin regime.
- 29 Japan denounces 1922 naval treaty.

1935 In Europe the dictators grew more arrogant. Mussolini cried aloud his dreams of Roman grandeur from the Quirinal balcony. In far-off Ethiopia dark warriors primed muskets and sharpened spears. Hitler eyed Austria and the Ruhr.

But why worry? America was climbing out of the Depression, we hoped; business was stirring and money was channeled through relief rolls to the distressed and the hungry. Except for outraged cries from the Liberty League, the New Deal forged ahead.

- Jan. 2 Bruno Richard Hauptmann goes on trial at Flemington, N. J., for kidnap-slaying of the Lindbergh baby.
- 4 Roosevelt asks 3,500,000 jobs (PWA) to end dole.
- 7 Oil control provision of NIRA unconstitutional, Supreme Court decides in first New Deal test.

- 13 Saar plebiscite 90 per cent for re-union with Germany.
- 29 Senate rejects World Court.
- Feb. 10 Rome reports 12-day clash between Italian and Ethiopian troops.
- 13 Hauptmann guilty.
- Mar. 1 Saar is returned to Germany.
- 6 22,000,000 on U. S. relief rolls.
- 16 Hitler scraps Versailles Treaty by re-establishing universal military training in Germany.
- 27 Hitler demands union with Austria, part of Czechoslovakia; wants air force and navy.
- April 14 Britain, France, Italy criticize Reich for treaty violation.
- May 24 9-year-old George Weyerhauser of wealthy lumber family kidnaped at Tacoma, Wash.
- 27 Supreme Court unanimously voids NRA.
- June 1 Weyerhauser returned after payment of \$200,000 ransom.
- 7 J. Ramsay MacDonald, Labour Prime Minister, resigns; Stanley Baldwin heads new Conservative government in Britain.
- 10 China yields to Japan in north, surrenders rule over Peiping, Tientsin.
- 19 Anglo-German naval pact gives U-boat parity.
- July 17 More than 80,000 Jews have quit Germany.
- Aug. 15 Will Rogers, 55, and Wiley Post, 36, killed in plane crash in Alaska.
- 21 Senate votes for neutrality, ban on arms sale to belligerents in Ethiopia crisis.
- Sept. 8 Huey Long, 42, shot at Louisiana capitol; his assailant killed by guards. Long dies September 10.
- 15 Jews deprived of citizenship by Nazis; ghettos revived; swastika becomes national flag.
- 17 Manuel Quezon elected first president of Philippines.
- 21 Mussolini rejects League's peace plan for Ethiopia.
- Oct. 2 Ethiopia invaded.
- 23 Dutch Schultz shot by gangsters in Newark, N. J., cafe; dies next day.
- Nov. 3 King George II recalled to Greek throne in plebiscite.
- Dec. 14 Thomas G. Masaryk resigns as President of Czechoslovakia.
- 22 Anthony Eden becomes England's Foreign Secretary; urges sanctions against Italy.

1936

The fuse was lit in Ethiopia and North China. As war rumbled along those far-off horizons, the U. S. sidled behind a "Neutrality Act" and fought shy of foreign entanglements. This time, we said, we will have no truck with foreign wars. As for domestic conflict, John L. Lewis had just punched Bill Hutcheson in the nose and the boys were choosing up sides for Labor's great civil war between the AFL and CIO. It was, in fact, an exciting time for Labor, what with the generous new Wagner Act and the introduction of the sit-down strike. The New Deal was in the saddle, F.D.R. had signed the Social Security Act and another national election was coming up.

Jan. 6 AAA crop control program declared unconstitutional by the Supreme Court.

20 King George V, of England, dies at 70; Prince of Wales, 41, succeeds to the throne as Edward VIII.

Feb. 17 TVA wins first test of constitutionality as Supreme Court rules Wilson Dam can sell power.

26 Army seizes power in Japan; Tokyo under martial law.

Mar. 7 Hitler sends German troops into the Rhineland, defying Treaty of Versailles; scraps Locarno Pact.

10 France and Belgium insist on military sanctions against Germany.

29 Hitler receives 98.79 per cent vote in German elections.

31 Japanese troops invade Mongolia; Russians angry.

April 3 Bruno Richard Hauptmann electrocuted in Trenton, New Jersey.

May 5 Italian army occupies Addis Ababa; war is over.

9 Dirigible *Hindenburg* docks in Lakehurst, N. J., 61½ hr. after take-off from Friedrichshafen, Ger.

18 Guffey Coal Act found constitutional by Supreme Court.

June 4 500,000 strikers are out as Léon Blum's Socialist government, France's first, takes office.

July 19 Gen. Franco and rebel force land in Spain from North Africa, starting civil war.

Aug. 5 Premier General John Metaxas declares dictatorship in Greece under King George II.

12 Germany agrees to non-intervention in Spain.

Oct. 14 Belgium renounces French alliance, will look to own resources for national safety.

24 Germany, Italy agree to Fascist front against Europe.

Nov. 18 Italy and Germany recognize Franco's regime in Spain.

25 Japan signs anti-Comintern treaty with Germany.

Dec. 11 Edward VIII abdicates.

12 George VI proclaimed King; Edward, as Duke of Windsor, leaves England.

25 Generalissimo Chiang Kai-shek, dictator of China, is released thirteen days after being kidnaped by forces of Marshal Chang, former war lord, in mutiny.

1937

Now Spain was a battleground of weapons and clashing ideas. The Dictators had become a blustering team and there was no one to call their bluff. In Moscow the Kremlin produced a fantastic purge of traitors and weaklings and confused Bolsheviks.

In the U. S. Franklin Roosevelt was about to begin his second term after brushing off the Landon challenge. The Republican party's representation in Congress had dwindled to a handful. A confident F.D.R. was about to launch his scheme against the "Nine Old Men" on the U. S. Supreme Court.

Jan. 2 Britain signs Mediterranean Accord with Italy in effort to split Duce from Hitler.

4 10,000 Italian troops land in Spain.

19 Howard Hughes crosses U. S. in 7 hr., 28 min., 25 sec.

23 17 Moscow defendants confess they helped Trotsky plan to undermine Soviet.

30 Hitler scraps Versailles war guilt clause.

Feb. 2 Sit-down strikers at Flint, Mich., defy Court order to evacuate.

6 Roosevelt asks power to enlarge Supreme Court to 15 Justices; new appointments would offset elderly members who refuse to retire.

Mar. 1 Steel plants raise wages to \$5 per day; grant 40-hour week.

22 Hughes, Brandeis, Van Devanter oppose extra Justices as impairing Court's efficiency.

29 Supreme Court backs Washington State Minimum Pay Act for Women.

April 12 Supreme Court upholds Wagner Act.

May 3-5 Italy and Germany agree to help Franco fight on, and attack Madrid anew.

12 George VI crowned in London.

- 18 Senate committee rejects Roosevelt Court plan, 10-8; Van Devanter, 78, resigns.
- 24 Social Security upheld by Supreme Court.
- 28 Neville Chamberlain becomes Prime Minister of Britain, succeeding Baldwin.
- June 3 Duke of Windsor, former Edward VIII, weds Wallis Simpson.
- July 2 Amelia Earhart Putnam, 38, missing in Pacific in round-the-world flight; Navy ships and planes in search.
- 22 Senate defeats Court plan, burying it in committee by 70 to 20.
- 24 Alabama frees 5 of 9 Scottsboro defendants.
- Aug. 17 Sen. Hugo Black's appointment to U. S. Supreme Court confirmed; Senate rejects rumors of his Klan affiliation.
- 23 Japs land at Shanghai; 173 killed as shell explodes in international quarter.
- Nov. 29 Britain and France agree to give Hitler colonies in exchange for peace.
- Dec. 10 Japanese sack Nanking.
- 11 Italy quits League over Ethiopia.
- 12 U. S. gunboat *Panay* sunk by Jap planes.
- 14 Tokyo apologizes for *Panay*, ousts air chief two days later.
- 25 U. S. accepts Tokyo apology on *Panay*.
- 22 Commons approves Chamberlain policy.
- Mar. 4 Rev. Martin Niemöller imprisoned by Nazis.
- 12 Hitler strikes in Austria; Nazis seize government as army moves in; Schuschnigg ousted.
- 18 Mexico expropriates foreign oil interests.
- 29 U. S. protests Mexican oil seizures.
- April 10 Austrians vote 99.75 per cent for *Anschluss*.
- 16 Britain and Italy sign pact to maintain peace.
- May 9 League yields, allowing France and Britain to recognize Italy's conquest in Ethiopia, which is proclaimed 3 days later.
- June 20 France closes frontier at behest of Britain, halting aid to Spanish Loyalists.
- July 4 50,000 jailed in Austria during 3½ months of Nazi terror.
- 14 Howard Hughes completes flight around world: 3 days, 19 hr., 14 min., 10 sec. (record).
- 18 Douglas Corrigan lands in Dublin in "wrong way" flight.
- Aug. 3 Mexico rejects U. S. protest, cites U. S. New Deal to justify oil seizures.
- Sept. 1 Hitler demands autonomy for Sudeten Germans.
- 5 Prague yields to Nazi pressure on nearly all German demands.
- 19 Britain and France, after parley, urge Czechs to surrender Sudetenland.
- 25 Roosevelt appeals to Hitler and Czechs for peaceful settlement of problems.
- 30 Britain, France, Italy, Germany in parley at Munich agree to dismemberment of Czechoslovakia. Chamberlain returns to London with "peace in our time."
- Oct. 1 Nazi troops cross Czech border; Czechs yield to Polish demand for Teschen.
- 3 Hitler makes triumphant entry in Sudetenland, and—
- 5 forces Britain and France to yield more Czech territory in Bohemia.
- 30 "Attack from Mars" in radio sketch by Orson Welles causes widespread panic.
- Nov. 2 Hungary gets slice of Czechoslovakia, too.
- 10 Assassination of German envoy in Paris by Herschel Grynszpan looses Nazi wrath at Jews over

1938 The stock market sagged and slumped, industry was again in the doldrums. Roosevelt blamed a business recession. "Pump priming" was the word in Washington, where they talked of fresh billions to get things moving again.

The President was working on a plan for an enlarged Navy. The program sounded logical, for in Europe the machinery of war gathered momentum ominously, while the democratic nations fumed and hesitated. Hitler's troops were poised for Austria; the stage was set for Munich.

Jan. 28 Roosevelt asks billion dollars for "two-ocean Navy."

Feb. 4 Hitler announces seizure of army control; Ribbentrop becomes Foreign Minister.

16 Austria, yielding to Hitler's threat, puts Nazis in cabinet.

20 Hitler defies foes, says Nazis will protect Germans everywhere.

Anthony Eden resigns as British Foreign Minister, charging Chamberlain seeks to "buy peace."

all Reich; Jews herded into camps; fined \$400,000,000 three days later.

Mexico agrees to pay for oil and land seizures.

13 Mother Cabrini first American to be beatified in Vatican.

18 Hitler recalls German Ambassador from U. S. in protest against American anti-Nazi attitude.

23 Jews in Germany fined 20 per cent of all property.

Dec. 6 French, German peace pact signed.

1939 After Munich (Sept. 30, 1938) a murky twilight settled over the world—a time of uneasiness and fear. Britain armed feverishly, the U. S. stepped up plane production. The cause of the Spanish Loyalists disintegrated. Bundists, American Firsters and Communists grew hoarse denouncing warmongers. Congress stood firm for neutrality.

New York was excited about a World's Fair—the World of Tomorrow. While the assorted glamour and gadgets of this bright glimpse of the future were assembling on Flushing Meadow, a very different world was being shaped by forces unleashed in Europe. It was not the World of Tomorrow we expected. In its vast changes, economic and political upheavals, its waste and tumult and pain, it was to surpass the most extravagant forecasts.

Jan. 7 Tom Mooney pardoned.

Feb. 18 Golden Gate International Exposition opens in San Francisco.

27 Franco officially recognized by France and England.

Sit-down strikes outlawed by Supreme Court.

Mar. 2 Cardinal Pacelli elected Pope, becomes Pius XII.

7 UAW secedes from CIO.

12 Pius XII crowned Pope.

14 Slovakia, Ruthenia declare independence; Germany enters Bohemia-Moravia; Hungary enters Ruthenia.

15 Hitler and troops enter Prague.

16 Bohemia-Moravia becomes German protectorate; Hitler assumes protection of Slovakia; Hungary annexes Ruthenia.

22 Lithuania cedes Memel to Germany.

28 Madrid surrenders to Franco.

29 Spanish civil war ends as last 9 of 52 provincial capitals surrender.

31 Britain, France pledge aid if Poland resists a Nazi attack.

April 1 U. S. accords Franco full recognition.

7 Thomas J. Pendergast indicted by U. S. on income tax evasion.

Italian troops invade Albania.

27 House of Commons approves conscription in Great Britain.

28 Hitler scraps war renunciation treaty with Poland and naval limitations pact with England. Demands Danzig, and rebuffs Roosevelt's peace plea.

30 Over half million attend New York World's Fair on opening day.

May 3 Litvinov retires as commissar of foreign affairs, Molotov succeeds him.

5 Poland refuses to yield Danzig to Hitler; offers to negotiate.

22 Germany and Italy sign ten-year military pact.

June 1 Townsend old-age pension plan defeated in House.

5 Supreme Court voids Frank Hague's ban on CIO mass meetings.

13 Heinrich Himmler sent to crush Czech unrest.

21 Lou Gehrig has rare form of infantile paralysis; can never play baseball again.

Aug. 19 German-Russian 7-yr. trade agreement signed.

21 German-Russian 10-yr. nonaggression pact announced (signed Aug. 24).

25 Britain votes war powers to government.

Poland accepts U. S. peace plea; F.D.R. sends 2nd appeal to Hitler.

Polish-British 5-yr. military alliance signed.

26 Daladier asks Hitler for peaceful settlement with Poland.

27 Hitler rejects Daladier appeal, demands Danzig and Corridor.

29 Hitler agrees to negotiations with Poland, asks for Polish delegate by Aug. 30.

31 Germany considers negotiation plan rejected when no Polish delegate appears.

Hitler publishes 16-point peace plan; Poland rejects it.

Sept. 1 Germany invades Poland, annexes Danzig.

Britain, France give Hitler ultimatum to stop hostilities.

3 Britain, France declare war on Germany.

British liner *Athenia* torpedoed off Scotland, sinks next day.

- 5 U. S. proclaims neutrality.
- 10 Canada declares war on Germany.
- 17 Russia invades Poland.
- 18 Nazi, Russian armies meet at Brest-Litovsk, Pol.
- 19 Hitler offers peace if Britain, France accept his territorial gains.
- 20 Britain, France reject Hitler offer.
- 21 F.D.R. asks Congress to repeal arms embargo.
- 27 Warsaw surrenders.
- 28 Nazi-Soviet pact signed; partitions Poland.
- Oct. 6 Hitler offers peace on his terms or war of destruction.
- 9 Germans capture U. S. ship *City of Flint*, take it to Russia.
- 10 Daladier rejects Hitler peace offer.
- 12 Chamberlain also rejects Hitler offer.
- 14 British battleship *Royal Oak* sunk; 800 lost.
- 18 U. S. closes waters to belligerent submarines.
- 19 Turkey signs 15-yr. mutual assistance pact with Britain, France; Turkey not obliged to fight Russia.
- 26 Russia releases *City of Flint*.
- Nov. 2 Embargo repeal passed by House.
- 4 Roosevelt forbids U. S. ships to enter western European, Baltic or North Sea waters.
- 8 *Life With Father* opens at Empire Theatre, N. Y. C.
Hitler escapes time bomb in Munich beer hall; six killed.
- 20 Chiang Kai-shek elected President of Executive Yuan; H. H. Kung becomes Vice President.
- 30 Russia attacks Finland from land, sea and air; bombs Helsinki.
- Dec. 1 Roosevelt denounces invasion of Finland as "wanton flouting of law."
- 5 Fritz Kuhn, Bund leader in U. S., gets 2½ to 5 years for forgery, grand larceny.
- 10 U. S. lends Finland \$10,000,000 as Finns call on world to help beat off Red invader.
- 11 League of Nations calls on Russia to halt Finnish war in 24 hours.
- 12 Russia rejects League's demand.
- 17 *Graf Spee* scuttled off Montevideo by Hitler order after fleeing British warships.
- 19 Nazi liner *Columbus* scuttled in Atlantic to escape capture.
- 23 Roosevelt names Myron C. Taylor as peace envoy to Pope Pius XII.

28 Pope Pius XII returns King Victor Emmanuel's visit to the Vatican; first papal visit to Quirinal in more than seventy years.

1940 After the blitz in Poland—stalemate, boredom. It seemed a phony war. The French army moped behind the Maginot Line; German work gangs poured concrete along the Westwall. In London the war correspondents in their new uniforms talked it over like critics at a play, found it dull.

In the U. S. they were playing the "Star-Spangled Banner" in the theaters (*Life With Father* had just opened) and people grew misty-eyed when Kate Smith sang "God Bless America!" Wendell L. Willkie was about to write a short piece on national affairs called *We the People*. A new force was rising to challenge U. S. complacency and disturb the apathy of the American people.

- Jan. 3 F.D.R. asks wartime powers, urges higher taxes for defense.
- 11 Navy's 5-year program calls for 150 ships costing \$2,500,000,000.
- 22 Earl Browder gets 4 years for passport fraud.
- Feb. 15 J. P. Morgan & Co. abandons private banking; becomes public corporation April 1.
- Mar. 2 Russians, fighting Finland, crack Mannerheim Line, take Viipuri.
- 7 *Queen Elizabeth*, world's largest ship, comes to New York for safety from Nazi raids.
- 18 Soviet-Finnish peace terms end war at noon and give Karelian Isthmus, Viipuri to Russia.
- 17 Murder, Inc., ring of commercialized killers, uncovered in Brooklyn.
- April 9 Nazis invade Denmark and Norway; Copenhagen occupied.
- 15 British land in Norway to combat invader; capture Narvik.
- May 10 Nazis invade Netherlands, Belgium, Luxemburg.
Chamberlain resigns, Churchill takes over as Prime Minister.
- 11 New York World's Fair reopens at Flushing Meadow.
- 13 Churchill in historic address tells Britain the war means blood, sweat, tears.
- 14 German bombers raze Rotterdam as Dutch surrender.
- 16 Roosevelt asks billion for defense, 50,000 airplanes.
Germans rush into France.
- 28 Belgium surrenders as cabinet disowns Leopold.

- 28 Dunkerque evacuation of British begins.
- 31 Three-fourths of British army rescued from Dunkerque beaches; tanks, matériel lost.
- June 9** Norway surrenders.
- 10 Italy declares war on France, Britain; invades France.
- 15 Germans enter Paris (city undefended).
Russia seizes Lithuania; Latvia, Estonia seized 2 days later.
- 22 France and Germany sign surrender at Compiègne.
- 28 Russia seizes Bessarabia from Rumania.
- July 12** Britain and Russia sign 20-year mutual-aid pact.
- Aug. 8** Luftwaffe launches all-out attack on England.
- 20 Britain offers to lend sea-air bases to U. S.; asks naval aid.
- 31 Rumania demobilizes, prepares for Nazi occupation.
- Sept. 6** Carol II of Rumania abdicates.
- 7 Vichy government arrests Gen. Maurice Gamelin, Paul Reynaud, Édouard Daladier.
- 14 Italians invade Egypt.
- 23-25 Dakar beats off British-French sea attack; thwarts De Gaulle's invasion attempt.
- 27 Germany, Italy, Japan sign 10-year military pact.
- Oct. 3** H. G. Wells says U. S. should keep out of the war; our party politics would mess up the peace.
- 4 Hitler, Mussolini meet at Brenner Pass, lay plans for long war.
- 7 Reichswehr occupies Rumania.
- 16 U. S. registers 17,000,000 for selective service.
- 23 Hitler and Franco meet at Hendaye.
- 24 Hitler and Pétain meet, pledge collaboration.
- 27 New York World's Fair closes; 45 million paid admissions in 2 years.
- 28 Italy invades Greece.
- Nov. 7** Third largest suspension bridge collapses in high wind at Tacoma, Wash.
- 11 British air attack smashes Italian fleet at Taranto.
- 12-13 Vlachoslav Molotov at Berlin (first time he ever left Russia); holds two-day talk on Soviet's place in "New Order."
- 14 Nazis bomb Coventry, leave historic city in ruins.
- 17 Italians driven off Greek soil.

- 18 John L. Lewis quits as CIO head, keeping pledge to resign if Roosevelt was re-elected.

20 Hungary joins Axis.

- Dec. 1** Gen. Manuel Avila Camacho sworn in as President of Mexico.
- 5 British House of Commons rejects proposal for negotiated peace.
- 9 Gen. Sir Archibald Wavell launches counterattack in Egypt.
- 29 F.D.R. announces aid to Britain; calls for full war aid to Britain; U. S. "Arsenal of Democracy."

1941 This was the winter of the long blitz. The Luftwaffe rained bombs methodically on England. The Nazi war machine had rolled through the Balkans and was pushing across the rim of North Africa toward Suez, threatening the British life line. Lend-Lease was about to begin, over the bitter protests of isolationists. Already plants were expanding. The cry was for machine tools, aluminum, mechanics. While selective service took the youngsters, the able-bodied, the unmarried, industry's demands started a feverish migration from farms and towns to San Diego, Hartford, Paterson, Seattle, Kansas City, Detroit, Bridgeport. The "Arsenal of Democracy" was beginning its gigantic task. The training of the first raw conscripts had started. In newly staked-out Army camps thousands of wooden barracks and mess halls rose to the clatter of hammer and saw.

- Jan. 1** Ban by ASCAP bars most U. S. music from air.
- 7 William S. Knudsen and Sidney Hillman named U. S. defense production heads with equal powers.
- 22 British take Tobruk.
- 24 Four-day revolt of Iron Guard quelled after about 6,000 are killed in Rumania.
- 27 Willkie and Churchill confer in London.
- Feb. 10** Britain breaks with Rumania.
- 26 Britain wins all Somaliland in East Africa.
- Mar. 1** Bulgaria joins Axis; Nazis troops move in.
- 15 British rush army to Greece as Nazis move into Balkans.
- 25 Yugoslavs sign with Axis, touching off riots and revolt; government flees.
- April 6** Germany marches on Yugoslavia and Greece.
- 13 Belgrade falls; demoralized Yugoslavs take to the hills.
Russia, Japan sign 5-yr. neutrality pact in Moscow.

- 17 Yugoslavs surrender: Gen. Draja Mihailović continues guerrilla warfare.
- 27 Nazi tanks roll into Athens as remnants of British army quit Greece.
- May 6 Stalin takes Soviet premiership from Molotov.
- 10 Rudolf Hess, Nazi Deputy Fuehrer, lands in Scotland by plane.
- 11 Worst air raid on London takes 1,436 lives.
- 15 U. S. seizes *Normandie*, 10 more Vichy ships.
- 19 Italian forces in Ethiopia surrender to British.
- 20 LaGuardia named director of Office of Civilian Defense. Nazis launch airborne invasion of Crete.
- 24 HMS *Hood*, biggest British warship, sunk by Nazi battleship *Bismarck*.
- 27 *Bismarck* sunk by British naval, air attack.
- Roosevelt proclaims unlimited emergency.
- June 1 Crete overrun by Nazis.
- 2 Hitler and Mussolini meet at Brenner Pass.
- 18 Turkey signs amity pact with Germany.
- 21 British and Free French capture Damascus.
- 22 Hitler launches attack on Russia.
- July 5 Nazis reach the Dnieper.
- 7 U. S. occupies Iceland bases to supplement British troops.
- 12 Nazis break "Stalin Line," fan out toward Kiev, Moscow, Leningrad. Britain and Russia sign war pact, bar separate peace.
- 20 British broadcast calls for "V for Victory" campaign—launching famous symbol.
- 25 U. S. freezes Japanese assets, cuts off oil, bars silk.
- Aug. 12 Pétain summons France to full support of Hitler, backs war against Russia.
- 14 F.D.R. and Churchill announce agreement on war aims, future hopes in historic Atlantic Charter.
- 20 Russians blow up Dnieper dam as Nazis sweep across Ukraine.
- 28 Iran yields to British-Soviet troops; agrees to protective occupation.
- Sept. 4 U. S. destroyer *Greer*, attacked by Nazi sub, fights back.
- 8 Leningrad encircled by Nazis; siege begins.
- 11 F.D.R. orders Navy "shoot first" if Axis raiders enter U. S. zone.
- 12 Germans threaten countermeasures to U. S. "shoot first" policy.
- 19 Nazis take Kiev and Poltava.
- Oct. 3 Hitler announces Russia is defeated and "will never rise again."
- 16 Jap cabinet falls in crisis; Tojo, army firebrand, new Premier. House votes to arm American merchant ships.
- 17 U. S. destroyer *Kearny* torpedoed off Iceland; 11 lost.
- 30 U-Boat sinks U. S. destroyer *Reuben James* with loss of 100 off Iceland.
- Nov. 3 Nazis overrun Crimea, head for Sevastopol.
- 6 Maxim M. Litvinov named Russian Ambassador to U. S.
- 12 Russians halt Nazis at gates of Moscow.
- 15 Saburo Kurusu, Jap peace envoy, arrives at Washington.
- 26 Hull presents final terms to Jap envoys.
- Dec. 1 U. S. - Japanese tension rises as F.D.R. sees Navy chief. Japan moving troops in Indo-China; British fleet reaches Singapore.
- 6 F.D.R. sends appeal to Hirohito, urging peace.
- England declares war on Finland, Rumania and Hungary.
- 7 Japan attacks Pearl Harbor, Philippines, Guam, forcing U. S. into war; Pacific Fleet crippled.
- 8 Congress votes war, 470-1; Britain declares war on Japan.
- Berlin announces drive on Moscow is off for the winter.
- 9 Japs invade Malaya.
- 10 Japs land on northern Luzon in the Philippines.
- Jap planes sink British battleships *Prince of Wales* and *Repulse* off Malaya.
- 11 German, Italian declarations of war on U. S. bring quick response from Congress.
- 12 Japs seize Guam, attack Midway, Wake.
- 14 Japs attack Hong Kong.
- 16 Justice Owen Roberts heads Pearl Harbor inquiry.
- 17 Chester Nimitz succeeds Kimmel as head of Pacific Fleet.
- 20 MacArthur made full general; Admiral King given top command of U. S. Naval forces.
- 21 Hitler ousts Field Marshal Wal-

ther von Brauchitsch, takes supreme army command with rank of Field Marshal.

22 Churchill at White House for war parleys.

25 Hong Kong falls.

27 Japs bomb Manila (open city).

28 Japs invade Sumatra.

1942 Those little Japanese, they must be crazy! So we mumbled and fumed that Sunday afternoon. They were crazy, but they had sunk half our fleet (except the carriers), crippled a great naval base, reduced our Pacific sea power dangerously. They had driven us to panic, then into rage and confusion. We shook that off. We were in it now, up to our ears. The confusion cleared. The carping ciamor of the isolationists died out—to be followed almost immediately by a shrill Communist ciamor for a second front.

Russia was in desperate straits that winter. The war tempo came to America. Blackouts, air-raid wardens, civilian defense, censorship, draft boards, ration books, Krudsen-Hillman. No more automobiles. Already our planes were streaming onto English airfields; shiploads of trucks and tanks were unloading on the Persian Gulf for transit to Russia. We were in Iceland, Bermuda, on the shoulder of South America. We were in it—for keeps.

Jan. 2 MacArthur gives up Manila; fights on for Bataan, Corregidor.

13 Donald Nelson made chairman of War Production Board.

26 U. S. troops land in N. Ireland.

31 First U. S. Navy task force attack on Marshall and Gilbert Islands.

Feb. 10 *Normandie* capsizes after fire at N. Y. pier; sabotage theory rejected by Naval officers.

15 British surrender Singapore.

28 Japs invade Java.

Mar. 8 They land on New Guinea at Salamaua and Lae.

17 MacArthur arrives in Australia from Philippines; promises to reorganize Pacific forces.

29 Britain offers India dominion status after war with right to quit Empire. Indian leaders reject it.

April 9 U. S. forces on Bataan surrender.

14 Laval becomes Premier of France.

18 Tokyo bombed by U. S. planes from carrier *Hornet*.

May 4-9 Jap fleet defeated with heavy loss in Battle of Coral Sea, carrier plane action.

6 General Wainwright surrenders Corregidor.

15 Gas rationing starts in 17 eastern states and D. C.

30 Over 1,000 RAF planes smash Cologne in war's mightiest raid.

June 4-6 U. S. Pacific Fleet stops Jap seapower in crucial Battle of Midway.

10 Lidice, Czech., razed, all males put to death in Nazi terror following Heydrich assassination, Berlin announces.

12 Japs land on Attu in Aleutians; Jap ships reported in harbor of Kiska.

July 21 Leahy named F.D.R.'s chief of staff.

Aug. 7 U. S. Marines land in Solomons, seize Tulagi and Guadalcanal, first step on road to Tokyo.

Sept. 12 Russians halt Nazis at Stalingrad; more than 1 million engaged in crucial siege.

Oct. 3 F.D.R. orders price, wage, rent stabilization; names Byrnes director of Office of Economic Stabilization.

24 Montgomery attacks Rommel's El Alamein line in Egypt.

Nov. 8 U. S. and England land great army in French North Africa; largest invasion operation in history.

11 Nazis begin occupation of all France.

14 Eddie Rickenbacker and companions rescued after 24 days adrift in Pacific after plane crash.

13-15 U. S. smashes Jap armada in Solomons.

18 Pétain makes Laval dictator of France.

27 French scuttle main part of fleet at Toulon to save it from Nazis.

Dec. 1 Beveridge submits cradle-to-grave security plan in Britain.

24 Darlan, 61, French turncoat and civilian administrator in Africa, assassinated.

1943 The war maps showed a U. S. Army pushing the Nazis back in Tunis; Rommel's Afrika Korps streaming through Tripoli in retreat. American men, tanks and planes were in action at last.

MacArthur had stopped the Japs on New Guinea, was building a base in Australia. Our Navy had rallied in the Pacific and was getting ready to take the offensive. At home the shrill outcry for a second front mingled with the drive to sell war bonds, scrap metal drives. Beneath these surface excitations was the steady roar of machinery, the surge and thunder of blast furnaces and rolling mills. The blueprint

stage was past. We were making the stuff.

Eighteen miles northwest of Knoxville that winter, woodsmen were clearing a Tennessee hillside. A building operation was about to begin, Manhattan Project, at Oak Ridge, something connected with science, and the war.

Jan. 11 F.D.R. calls for \$100 billion for war.

14-24 Casablanca Conference: Roosevelt and Churchill agree on unconditional surrender goal.

18 Russians announce breaking of 17-month Leningrad siege.

27 First all-U. S. air raids over Reich.

31 German 6th Army reported virtually destroyed at Stalingrad; turning point of war in Russia.

Feb. 9 Japanese evacuate Guadalcanal.

11 Dwight D. Eisenhower made full general; will command Allied armies in North Africa.

16 Russians take Kharkov.

Mar. 2-3 Japs lose 10 warships, 12 transports as Allied planes smash convoy in Battle of Bismarck Sea.

April 7 Advance forces of U. S. 2nd Army and British 8th Army meet in Tunisia.

8 President curbs prices, pay, job changing.

19 Reports tell of Nazi annihilation of 2,000,000 European Jews by gas chamber, mass execution.

May 7 Americans take Bizerte; British seize Tunis.

11 Americans land on Attu in Aleutians.

12 Remnants of Nazis trapped on Cape Bon, ending war in Africa.

15 Third International (Comintern) dissolved in Moscow.

June 22 Army enters Detroit to quell race riots.

30 MacArthur makes landings at New Guinea, Trobriand, Rendova.

July 9 Allies invade Sicily.

25 Mussolini deposed. King and Pietro Badoglio rule Italy.

Aug. 17 Sicily conquest complete as Messina is captured.

21 Russians replace Litvinov as U. S. Ambassador with Andrei Gromyko.

Sept. 4 MacArthur lands near Lae, N. G.

8 Italy's unconditional surrender announced.

9 Mark Clark's Fifth invades Italy at Salerno.

10 Nazis seize Rome.

Oct. 13 Italy declares war on Germany.

19-Nov. 1 Moscow Conference: Hull, Eden, Molotov pledge unity to win war and establish world organization; promise democratic Italy and free Austria.

Nov. 6 Russians retake Kiev.

20 Marines land at Tarawa and other Gilbert islets.

22-26 Cairo Conference: Roosevelt, Churchill, Chiang pledge defeat of Japan, free Korea.

28-Dec. 1 Teheran Conference: Roosevelt, Churchill, Stalin agree on invasion plans.

Dec. 24 Eisenhower named to command invasion of Europe.

26 Nazi pocket battleship *Scharnhorst* sunk by British off northern Norway.

27 U. S. seizes railroads to bar strike.

1944 Through the big staging depots behind the seaport cities endless streams of men moved toward the docks. Trainloads, busloads; sunburned, hardened soldiers loaded with gear, men of college age, weaned from family and home; tough, casual young Americans on their way to war.

Railway stations and bus terminals eddied with hurrying, uniformed figures. Broadway and Main Street were overrun. War had reached concert pitch. England bulged with uniformed men, fighter and bomber pilots, tanks, trucks, matériel. Ships in great sprawling convoys were moving across the Atlantic; tankers, troopships, supply ships, ammunition ships, LST's, LCI's, assembling around the rim of the British Isles for D-Day.

In the Pacific, Task Force 58 with its new fast Essex class carriers was ranging from the Solomons to the Gilberts and Marshalls. The Navy was about to begin its swift relentless conquest of the Pacific stepping stones to Japan.

Jan. 4 Russian army over Polish line.

22 Allied troops land behind German lines at Anzio near Rome.

31 Marines and Army troops land on Kwajalein Atoll in the Marshalls.

Feb. 15 The Abbey of Monte Cassino bombed by Allied planes.

Mar. 4 U. S. planes attack Berlin for the first time.

19 Russians reach Rumanian border.

April 26 U. S. Army seizes Montgomery Ward and Company in Chicago as a result of a strike.

May 9 Russians retake Sevastopol.

June 4 Rome falls to the Allies.

6 American, British and Canadian forces land in France, D-Day.

- 11 Russians open drive against Finland.
- 15 New B-29 Superfortresses bomb Japan for the first time. Germans begin robot bomb attacks on England.
- 26 Cherbourg falls to the Allies.
- July 3 Minsk, last great Russian city held by Nazis, taken by Russians.
- 20 Hitler wounded in bomb plot. American forces land on Guam.
- Aug. 2 Turkey breaks off diplomatic relations with Germany.
- 15 Allies land in south France.
- 23 Marseilles, Grenoble fall.
- 25 Paris freed by U. S. and French troops.
- Sept. 4 Antwerp, Brussels fall to Allies. Finns quit war with Russia, ask Germans to leave the country.
- 11 Americans enter Germany.
- 14 Marine 1st Division lands in Palau.
- 17 Allied air-borne army lands in Holland.
- 24 Czechoslovakia and Hungary are invaded by Red army.
- Oct. 4 American forces break through the German Westwall.
- 13 U.S.S.R. captures Riga, Latvia.
- 20 U. S. troops invade the Philippines.
- 28 Bulgaria signs Soviet armistice terms.
- Dec. 15 Americans land on Mindoro, 150 miles from Manila.
- 16 German counteroffensive launched in Belgium.
- 24 Americans temporarily halt the Nazis on the ninth day with help of 7,000-plane raid.
- 12 German line crumbles; Allies regain 100 square miles in "Bulge."
- 17 Russians take Warsaw by encirclement.
- 26 Yankees sold to McPhail-Topping syndicate for \$3,000,000.
- Feb. 3 U. S. Army breaches Westwall; drives last Nazis from Belgium. U. S. troops enter Manila.
- 5 Trapped Japs fire Manila, business area in flaming ruins. Third Army smashes through Siegfried Line.
- 7 Russians reach outer defenses of Berlin.
- 12 Big Three at Yalta agree to disarm Germany forever.
- 13 Russians take Budapest after 50-day siege.
- 19 U. S. Marines land on Iwo Jima.
- 23 Marines raise flag on Mt. Suribachi.
- 24 Egyptian Premier assassinated as Egypt declares war on Axis.
- Mar. 7 Lt. Gen. Courtney H. Hodges' First Army crosses Rhine south of Cologne.
- 10 B-29's begin incendiary raids on Japan, set great fires in Tokyo.
- 16 Iwo Jima, toughest Pacific Island, falls to U. S. after 25-day assault.
- 22 Patton's Third Army crosses the Rhine.
- 30 Russians take Danzig.
- April 1 U. S. Tenth Army invades Okinawa.
- 11 Ninth Army reaches the Elbe in 50-mile surge; Russians drive past Vienna.
- 12 F. D. Roosevelt, 63, dies of cerebral hemorrhage at Warm Springs, Ga., at 3:35 P.M. Harry S. Truman sworn in to succeed him.
- 13 Russians take Vienna, seize 120,000 Nazis.
- 21 Russians edge into Berlin.
- 23 Nicholas Murray Butler retires after 44 years as president of Columbia University.
- 25 United Nations parley opens at San Francisco.
- Americans and Russians meet on the Elbe.
- 26 Bremen falls to British; Henri Philippe Pétain captured at French border.
- 28 Benito Mussolini, 61, and mistress Clara Petacci killed at Lake Como.
- 30 Russian flag raised over Reichstag.
- May 1 Grand Admiral Karl Doenitz takes

1945

It was mostly downhill now. The great American war potential had delivered the goods. America's industrial strength, translated into tanks, trucks, planes, jeeps, was closing in on Germany. The Battle of the Bulge was the Nazis's last desperate stroke and it didn't quite come off. Along the Pacific seaboard, Navy convoys were loading for Iwo and Okinawa. From newly captured Saipan and Tinian, B-29's were pounding Japan's industrial centers to rubble. The war had come to its last decisive phase. Here at home the nation churned with ultimate activity. Everyone had a job, everyone had money. Hotels, night clubs, theaters, roadhouses, juke joints reflected the tension and hysteria. Victory was in the air.

Jan. 9 General Douglas MacArthur lands invasion force in Lingayen Gulf, Luzon; wins 15-mile beachhead.

command in Germany, announcing death of Hitler, 56.

2 Berlin falls.

4 Nazis give up Denmark, Netherlands, North Germany.

7 Germany surrenders unconditionally at 2:41 A.M. (French time).

23 Churchill dissolves British war cabinet; calls election. Admiral Doenitz and aides seized. Heinrich Himmler, 44, commits suicide by poison.

26 Vast Tokyo area—18.6 square miles—burned out by double raid of B-29's.

June 14 Joachim von Ribbentrop, Nazi foreign minister, seized in Hamburg.

21 Okinawa won by U. S. Tenth Army.

26 United Nations Charter signed at San Francisco.

27 Edward R. Stettinius, Jr., resigns as Secretary of State to become U. S. delegate to United Nations.

July 13 U. S. surface fleet begins bombardment of Japan.

15 Lights in Britain shine at night for first time since Sept. 3, 1939.

17 Truman, Churchill, Stalin meet at Potsdam for final war conference.

21 U. S. serves Japan with unconditional surrender ultimatum on Potsdam terms.

26 Churchill out, Attlee in as British election returns show overwhelming sweep for Labour party. Attlee replaces Churchill at Potsdam conference.

28 Army bomber crashes into Empire State Building in fog; 13 killed, 26 hurt.

Aug. 2 Potsdam parley agrees on future of Germany; reparations, peace preliminaries.

6 Hiroshima blasted by atomic bomb dropped by U. S. Army Air Force. (Trial bomb tested in New Mexico, July 16.)

8 Russia declares war on Japan.

9 Nagasaki hit by second atomic bomb.

14 Japan accepts surrender terms; war ends. MacArthur to direct occupation.

16 Pétain guilty of treason; death sentence commuted to life imprisonment by Provisional President Charles de Gaulle.

Sept. 2 Japanese sign surrender aboard battleship *Missouri* in Tokyo Bay. V-J Day.

Stalin in victory broadcast claims Kuriles and Sakhalin for Russia.

11 Gen. Hideki Tojo, wartime premier, shoots himself in futile suicide attempt.

Oct. 3 Truman suggests world ban atom bomb in war; asks federal control on atomic development in U. S.

9 Pierre Laval, 62, sentenced to die as traitor (dies Oct. 15).

18 Twenty-four Nazi ringleaders indicted as war criminals.

Nov. 6 O'Dwyer elected Mayor of N. Y.; Tammany back after 12 years.

15 Truman, Attlee, King decide in Washington conference that atom bomb secrets will not be shared until United Nations devise firm control plan.

Dec. 15 Prince Fumimaro Konoye, three times premier of Japan, commits suicide rather than face trial.

16 Truman names Secretary Byrnes, Stettinius, Senator Tom Connally, and Mrs. Eleanor Roosevelt delegates to the United Nations.

1946 The first full year of peace. Peace? Labor fought capital in the U. S. as never before—four and a half million men were involved in strikes. Congress and President Truman fought over price controls. Results: prices zoomed. You could pay \$2.75 for one hamburger at a restaurant, or \$17.50 for one shirt. Peace? You should have heard what the Republicans called the Democrats. The Republicans won Congress. Peace? Interminable wrangling among the Big Four victors. Finally they grudgingly agreed on compromise peace treaties, but only for the small-fry enemies, not for Germany or Japan. And the shaky walls of the young United Nations edifice were almost knocked down by the quarrels between Russia and the Western nations. A total of 11,000 divorces was granted in Reno—an all-time record. The U. S. nonfiction best seller was *Peace of Mind*.

Jan. 3 William Joyce ("Lord Haw Haw" on German radio) is hanged in London as traitor.

7 American occupation troops hold mass demonstrations saying they "wanna go home"; demonstrations spread to India, Korea, Japan, Philippines, France, Germany.

10 U. S. Army hits the moon with radar impulses.

General Assembly of the United Nations meets first time in London.

17 United Nations Security Council meets for the first time in London.

- 20 General Charles de Gaulle resigns as President of France.
- 24 U. N. General Assembly creates Atomic Energy Commission.
- 25 John L. Lewis and his United Mine Workers rejoin American Federation of Labor, which they had bolted in 1936.
- Feb. 24 Argentina elects Perón President.
- Mar. 4 England, France and U. S. publish documents showing Franco's collaboration with Axis, and call on the Spanish people for "peaceful withdrawal" of Franco.
- 6 Japan publishes draft of new constitution abolishing army, navy, air forces forever, making war unconstitutional.
- April 3 Firing squad executes Lt. Gen. Masaharu Homma, who ordered Bataan Death March.
- 8 League of Nations meets for last time in Geneva; puts itself out of existence (Apr. 18).
- 25 Council of Foreign Ministers (Byrnes, Bevin, Molotov and Bidault) meets in Paris to draw up peace treaties for Italy, Rumania, Hungary, Bulgaria and Finland.
- 29 U. S. proposes treaty with England, Russia and France to keep Germany disarmed twenty-five years.
- May 9 King Victor Emmanuel III abdicates, hoping Italy's monarchy can be saved by his son, Humbert, who takes throne.
- 17 Truman seizes railroads in face of strike threat.
- June 2 Italy votes to abolish monarchy.
- 3 Twenty-eight Japanese war leaders go on trial in Tokyo.
- 29 Truman vetoes price control bill, letting OPA expire; but he hopes Congress will extend the present law. Congress does not; OPA expires.
- British arrest 2,718 Jews in Palestine, trying to round up terrorists.
- July 1 Army superfortress drops atom bomb in first test at Bikini Atoll; 5 ships sunk, 9 heavily damaged.
- 4 U. S. grants Philippines independence.
- 13 Congress approves \$3,750,000,000 loan to England.
- 15 Yugoslavia condemns General Mikhailović to be shot.
- 25 Second atom bomb is tested at Bikini, exploded under water; battleship, aircraft carrier and eight other craft sent to bottom. OPA is revived after lapse of twenty-five days as Truman signs new bill.
- 26 Congress puts U. S. atom control in hands of civilian board.
- 29 Twenty-one nations assemble in Paris to discuss peace treaties with Italy, Bulgaria, Rumania, Hungary and Finland.
- Aug. 13 Russia reveals it has demanded from Turkey a share in the military control of the Dardanelles.
- 14 La Follette dynasty in Wisconsin is overthrown when Republicans fall to renominate Sen. Robert M. La Follette, Jr.
- Sept. 1 Greece votes to bring back King George II.
- 2 First all-Indian government inaugurated; Jawaharlal Nehru heads cabinet.
- 8 Nine-year-old King Simeon II of Bulgaria loses his throne as nation votes to abolish monarchy.
- 20 Truman fires Henry Wallace from the Cabinet.
- Oct. 1 Twelve top Nazis sentenced to die by Nuremberg tribunal; seven sent to prison; three acquitted.
- 13 France adopts a new constitution, by narrow margin of 1,000,000 votes, despite De Gaulle's opposition.
- 15 Goering, 53, kills himself with cyanide of potassium a few hours before ten other Nazis are executed at Nuremberg.
- Nov. 4 British disclose that Hindu-Moslem riots in India have cost 5,018 lives in the last four months.
- 5 Republican landslide overturns Democratic control of Congress.
- 9 Truman ends all price and wage controls, except on rents, sugar and rice.
- 15 Dutch end 15-month strife in Java by tentatively recognizing Indonesian Republic.
- 21 National strike of UMW soft-coal miners begins.
- Dec. 4 Judge Goldsborough fines John L. Lewis \$10,000 and UMW \$3,500,000 for not calling off coal strike (UMW fine reduced to \$700,000 by Supreme Court, Mar. 6, 1947).
- 14 U. N. accepts Rockefeller gift of permanent headquarters site in midtown New York City.
- 19 U. N. Assembly unanimously votes resolution for general disarmament.
- 30 U. N. Atomic Energy Commission accepts U. S. atom control plan, 10 to 0, Russia and Poland abstaining.

1947 The United States grew tired of seeing small nations sucked into the Soviet orbit, so the Truman Doctrine was born to bolster Greece and Turkey against Communism. But this wasn't enough. By summer the Marshall Plan was born—a vast, four-year project by which the United States would pour out billions to put sixteen democracies of Western Europe back on their feet economically. Here at home we were harassed by the high cost of living. Eggs: \$1 a dozen; butter and steak: \$1 a pound. Income tax: still at war peak, and Truman vetoed cuts passed by Republican Congress. To top it all, Paris fashion designers told women to throw away their dresses and get the long-skirt New Look; meekly, they did.

Jan. 1 England nationalizes all coal mines.

U. S. transfers control of domestic atomic energy development from Army to civilian commission.

15 Vincent Auriol elected first President of Fourth French Republic.

17 Paul Ramadier, Socialist, named first Premier of new French constitutional government.

Feb. 10 Peace treaties for Italy, Rumania, Bulgaria, Hungary and Finland are signed in Paris.

17 British capture 22nd shipload of Jewish refugees trying to smuggle themselves into Palestine; deport them to Cyprus.

20 Britain announces she will withdraw from India by June, 1948, regardless of whether India has established government by then.

28 France and England announce 50-year treaty of alliance; to be signed Mar. 4.

Mar. 4 Russia rejects U. S. plan for control of atomic energy by U. N.

6 Supreme Court finds John L. Lewis guilty of contempt for failing to call off coal strike in November.

10 Big Four Council of Foreign Ministers begins Moscow meeting to draw up peace treaties for Italy and Germany.

12 Truman asks Congress for \$400 million to save Greece and Turkey from Communist expansionism.

31 Draft law expires; many war-time controls go off. Sugar rationing stays.

April 1 King George II of Greece dies of heart attack; his brother takes throne as Paul I.

2 Security Council approves U. S. trusteeship of former Japanese-mandated Pacific islands.

9 Senate confirms, 50-31, nomination of David E. Lillenthal and 4 others in U. S. Atomic Energy Commission after 10-week fight.

14 General Motors settles wage dispute with United Electrical Workers (CIO) with 15-cent-an-hour wage increase setting pattern.

May 4 Socialist Premier Paul Ramadier ejects Communists from French Cabinet.

15 U. N. General Assembly ends first special session after voting, 46-7, for 11-nation inquiry committee on Palestine.

23 U. N. Balkan Inquiry Commission finds Yugoslavia, Bulgaria and Albania guilty of aiding Greek guerrilla forces waging civil war.

June 5 Marshall says U. S. may have to spend billions to put Europe on its feet (Marshall Plan).

11 U. S. ends sugar rationing, last of wartime controls.

27 Foreign Ministers of Britain, U.S.S.R. and France meet in Paris to discuss Marshall Plan.

July 6 Generalissimo Franco holds plebiscite in Spain to ratify his dictatorship; wins by large margin.

8 Coal strike averted as United Mine Workers win biggest pay boost in history—44% cents an hour.

12 Paris conference on Marshall Plan to reconstruct Europe opens with 16 nations attending and 8 nations boycotting (at behest of Russia).

20 Dutch troops launch offensive in Java against native Indonesian Republic.

Aug. 1 U. N. Security Council orders Dutch and Indonesians to cease hostilities in Java.

10 William P. Odom flies alone around world in fastest time ever—19,645 mi. in 73 hr., 5 min., 11 sec.

15 Freedom comes to India, split into two states—India (mostly Hindu) and Pakistan (mostly Moslem).

19 Two Soviet vetoes kill Security Council effort to resolve Balkan crisis involving Greece, Bulgaria, Yugoslavia and Albania.

27 England cuts meat ration to 20 cents a person a week to keep from bankruptcy; bans all pleasure motoring after Oct. 1.

Sept. 2 19 American nations sign treaty of Rio de Janeiro, for mutual aid against aggression.

15 Peace treaties for Italy, Rumania,

Hungary, Bulgaria and Finland go into effect at midnight.

- 22 16 European nations complete in Paris their report on Marshall Plan; say Europe will need \$15.81 billion in credits from U. S. in next 4 years.

Oct. 5 Moscow announces formation of new Communist international organization, "Cominform," aimed at U. S. "imperialism."

- 28 Congressional inquiry into Communism in Hollywood cites 10 screen writers for contempt for failing to say whether they are or ever were Communists.

Nov. 2 Howard Hughes flies world's biggest plane, built for 500 passengers.

- 5 U. N. Assembly approves sending commission to Korea to set up free government; Russia boycotts it.

17 Truman asks for power to revive price controls and rationing if necessary.

- 20 Princess Elizabeth of England is married to Lt. Philip Mountbatten.

29 U. N. Assembly approves partitioning of Palestine.

Dec. 12 John L. Lewis announces withdrawal of UMW from AFL.

- 30 King Michael abdicates; Rumania declared "People's Republic."

1948 A year of the jitters. The world shuddered when Soviet Russia gobbled up Czechoslovakia. The world was on tenterhooks when Russia blockaded the sectors of Berlin occupied by the U. S., Great Britain and France. What day would World War III break out? Whittaker Chambers opened a pumpkin, and out popped State Department secrets allegedly stolen for the Communists. The U. S. began rearming, drafting its youths into the Army. But we took time out on November 3 to give a great roar of laughter. Poor Harry Truman, shunned by many of his own Democrats, consigned to oblivion by all the pollsters and political pundits—poor Harry was just about the only man who thought he could be re-elected President—and he was right! Best-selling books of the year were: *Sexual Behavior in the Human Male*, which indicated that American males don't behave too well, and *How to Stop Worrying and Start Living*, the profits from which certainly must have eased any of Dale Carnegie's worries.

Jan. 1 Britain nationalizes railways.

- 2 India appeals to U. N. to stop "aggression" by Moslem Pakistan.

5 U. N. Little Assembly meets for first time; boycotted by Russia.

Poland, Yugoslavia, Czechoslovakia, the Ukraine and Byelorussia.

- 12 U. S. Supreme Court orders Oklahoma to provide legal education for Negro girl.

17 Dutch sign truce with Indonesian Republic in Java, retaining rich oil and rubber areas.

- 23 Longest U. S. cold wave in 12 winters shuts schools and factories for lack of fuel oil.

30 Gandhi is assassinated by Hindu fanatic who wanted war against Moslem Pakistan.

Feb. 4 Britain freezes wages to curb inflation.

- 18 Eamon de Valera ousted as Prime Minister of Ireland after 16 years; John A. Costello elected.

23 5 Southern governors, angry at Truman civil-rights program to aid Negroes, say "South is no longer 'in the bag.'"

Communists seize power in Czechoslovakia; President Eduard Beneš yields.

- 29 Navy FJ1, jet fighter plane, sets new speed record, flying 950 mi. from Seattle to Los Angeles in 1 hr., 58 min., 7 sec.

Mar. 2 Snowfall in New York City reaches total of 58.4 in., setting record since winter of 1892-93.

- 6 Western Allies agree on international control of Germany's Ruhr.

10 Jan Masaryk, 61, Foreign Minister of Czechoslovakia, plunges to death; Czech Communists say it was suicide.

- 17 Truman asks Congress to revive draft to forestall Russian aggression.

5 nations (Britain, France, Belgium, Netherlands, Luxemburg) sign 50-year treaty of alliance.

- 30 Ninth International Conference of American States opens in Bogotá, Colombia.

31 Russia imposes rigid controls on British, French and American traffic between Berlin and western zones; Western Allies halt their trains rather than submit.

Apr. 2 Congress passes global aid bill of \$6.098 billion, including European Recovery Program.

- 18-19 Communists beaten in Italian elections, winning only 31 per cent of vote. Christian Democratic party wins 49 per cent.

19 Federal District Court convicts John Howard Lawson, film writer, of contempt of Congress for fail-

ing to say whether or not he was a Communist.

- 20 Federal court fines John L. Lewis \$20,000 and United Mine Workers \$1,400,000 for criminal contempt in failing for one week to obey court order to call off strike.

Assailant wounds Walter P. Reuther, President of United Automobile Workers, by firing through kitchen window.

- May 14 British end mandate over Palestine; Jews proclaim new nation of Israel.

- 16 Arab armies invade Palestine from both north and south.
- 25 General Motors grants 11-cent hourly wage increase to UAW; wages to move up or down according to living costs.

- June 3 World's largest telescope, 200-in. mirror, is dedicated on Palomar Mountain, Calif.

- 7 Eduard Beneš resigns as President of Czechoslovakia rather than sign new Communist constitution.

- 9 Truman says 80th Congress is worst in U. S. history.

- 11 Palestine war ceases for 4 weeks under U. N. truce.

- 17 Britain and France agree to set up separate state of West Germany under Western Allies' control.

- 19 Russia stops all rail and road traffic between Berlin and western German occupation zones; Americans, British and French isolated in city.

- 28 Communist Information Bureau (Cominform) denounces Marshal Tito, Yugoslav Premier.

- July 1 Russians withdraw from Allied Kommandatura, 4-power government of Berlin.

- 5 Britain adopts National Health Service Act providing free medical service for everybody who requests it.

- 18 Arabs and Jews obey U. N. order to cease fire in Palestine under threat of penalties.

- 20 U. S. indicts 12 Communist party leaders on charges of advocating overthrow of U. S. government.

- 31 New York International Airport at Idlewild, Queens, dedicated; largest commercial airport in world.

- Aug. 2 Senate filibuster kills bill to abolish poll tax in Southern states.

- 3 Whittaker Chambers, former

Communist, says Communists maneuvered themselves into key U. S. government posts before war.

- 12 Mrs. Oksana Kasenkina, Russian teacher, jumps out of Soviet consulate in New York; says later she was "prisoner" there.

- Sept. 6 Queen Wilhelmina of the Netherlands abdicates after reigning 50 years; Juliana becomes Queen.

- 17 Count Bernadotte, U. N. mediator in Palestine, slain in Jerusalem.

- 25 U. S. discloses jet-plane speed approaching 900 mi. an hour.

- 29 U. S., Britain and France ask U. N. to consider Berlin crisis as "threat to peace."

- Oct. 22 One-week renewal of Palestine warfare ends with Israel wresting control of Negeb from Egyptians.

- 25 Russia vetoes U. N. plea to lift Soviet blockade of Western Berlin.

- 26 5 European Western Union nations ask U. S. and Canada to join in North Atlantic alliance.

- 30 First shipload of 813 DP's arrive in New York.

- Nov. 1 Chinese Communists capture Mukden, giving them control of Manchuria.

- 8 Rep. J. Parnell Thomas (N. J.) indicted on charges of conspiracy to defraud government by salary kick-backs.

- 12 Tojo and 8 other Japanese war leaders sentenced to hang.

- 14 Princess Elizabeth gives birth to 7 lb. 6 oz. son, who may someday be King of England.

- Dec. 6 Whittaker Chambers says Alger Hiss supplied data for Communist spies.

- 15 Hiss indicted for perjury in New York for denying he passed secrets to Chambers.

- 19 Dutch troops seize Jogjakarta, capital of Indonesian Republic

- 23 Hideki Tojo and 6 other Japanese war leaders hanged in Tokyo.

1949 Having chewed \$148 million worth of gum during 1948, the people of our great republic started off 1949 by seeking something for nothing in two ways: (1) by annexing the millions of dollars handed out free by radio give-away shows, and (2) by plunging into a craze called Pyramid Clubs. In the eyes of some, the biggest news of the year was that red-headed Rita Hayworth, of Hollywood, was married in May to Prince Aly Khan, heir to one of the world's largest fortunes. By summer, however, we had plunged into a full-blown

Red scare: Communists in the schools, maybe—and Alger Hiss in the State Department. President Truman called it hysteria. And then in early autumn the President made a momentous 14-word announcement that changed the whole world picture: "We have evidence that within recent weeks an atomic explosion occurred in the U.S.S.R." We shivered at the thought that Russia had the atom bomb 3 years earlier than expected.

Jan. 1 India and Pakistan end war over Kashmir, accepting U. N. truce plan for plebiscite.

17 Trial of 11 top Communists begins, with Federal Judge Harold R. Medina presiding.

21 Chiang Kai-shek retires from presidency of China.

25 Israel holds first elections; David Ben-Gurion's moderate Socialist party wins.

Feb. 7 Canton becomes temporary capital of China as Communists menace Nanking.

8 Hungary sentences Josef Cardinal Mindszenty to life imprisonment for treason.

New 6-jet Boeing B-47 bomber crosses U. S. in 3 hr., 46 min. at average speed of 607 mph.

9 Robert Mitchum and Lila Leeds, both of the movies, sentenced to 60 days in jail for marijuana party.

17 Dr. Chaim Weizmann elected first President of Israel by Assembly.

22 Russia deports Anna Louise Strong, American writer, as spy.

Mar. 2 Air Force B-50 Superfortress, *Lucky Lady II*, lands at Fort Worth, Tex., after circling globe nonstop—23,452 mi. in 94 hr., 1 min. Was refueled in air 4 times.

4 Judith Coplon and Valentin A. Gubitchev arrested in New York on suspicion of espionage.

8 William P. Odum sets long-distance record for light land planes, flying 5,300 mi. nonstop from Honolulu to Teterboro, N. J., in 36 hours.

Bulgaria sentences 4 Protestant clergymen to life imprisonment as spies for U. S.

10 Mildred E. Gillars ("Axis Sally") found guilty of treason.

25 Cultural and Scientific Conference for World Peace opens in New York as pickets shout and pray against communism.

29 Largest bank theft in New York City history: \$833,660 missing, along with assistant branch manager of National City Bank.

April 2 Lights go on full in Britain, for first time in 10 years, as electricity becomes plentiful.

3 Israel and Jordan sign armistice, ending Palestine war.

4 12 nations sign North Atlantic defense treaty.

14 Last Nuremberg war-crimes trial by American military tribunal sends 19 high Nazis to prison.

18 Eire becomes free republic of Ireland, cutting last tie with Britain.

23 U. S. Navy ordered to halt construction of 85,000-ton supercarrier after keel is laid; Sec. of Navy Sullivan resigns (April 26) in protest.

24 Chinese Communists capture Nanking.

May 8 West Germans, at Bonn, approve constitution for federal republic.

10 Frank Hague's political machine in Jersey City, N. J., beaten at polls after 32-year rule.

11 U. N. admits Israel as 59th member.

12 Russia lifts land blockade of West Berlin; Western Allies lift their counterblockade.

22 James V. Forrestal, 57, former Sec. of Defense, leaps to death from 16th floor of Bethesda (Md.) Naval Hospital.

27 Rita Hayworth is married to Prince Aly Khan in Vallauris, Fr.

June 1 Czechoslovakia takes over control of Catholic Church.

20 Council of Foreign Ministers adjourns without agreement on unifying Germany.

30 Senate defeats Truman's drive to have Taft-Hartley Law repealed. Judith Coplon found guilty in Washington of stealing Justice Department secrets; sentenced to from 40 months to 10 years.

July 8 Alger Hiss perjury trial ends in hung jury: 8 for conviction, 4 for acquittal.

13 Pope Pius XII decrees excommunication for all Catholics who are aggressive Communists.

21 Senate ratifies North Atlantic Treaty without reservations by vote of 82-13.

23 Mrs. Franklin D. Roosevelt denies Cardinal Spellman's charge she has "record of anti-Catholicism."

Aug. 5 State Department White Paper

abandons hope of saving China from communism.

8 12-nation Council of Europe holds first meeting in Strasbourg, Fr., to promote European unity.

14 West German republic elects first *Bundestag*; conservatives win over Socialists.

16 Otis Barton sets record by descending 4,500 ft. into Pacific off Santa Cruz island, Calif., in "benthoscope."

18 Give-away radio shows banned by FCC after Oct. 1.

Sept. 8 U. S. grants \$20-million loan to Tito to help Yugoslavia avoid Russian domination.

12 West German republic elects Theodor Heuss first President.

15 Konrad Adenauer elected Chancellor of West Germany.

18 Britain devalues pound sterling from \$4.03 to \$2.80.

21 Chinese Communists proclaim People's Republic of China, setting up government at Peiping.

23 Truman discloses that atomic explosion took place recently in U.S.S.R., meaning Russians have A-bomb secret.

29 "Tokyo Rose" (Mrs. Iva Ikuko Toguri D'Aquino) found guilty of treason for wartime broadcasts from Japan.

Oct. 5 Henri Queuille resigns in France after 1 year, 25 days as Premier.

11 Democratic Republican Government of East Germany elects Wilhelm Pieck, number-one Communist, as first President.

12 Joint Congressional Committee clears Atomic Energy Commission of charges of "incredible mismanagement."

14 11 top U. S. Communists found guilty of conspiring to advocate violent overthrow of government.

15 Chinese Communists capture Canton; Nationalist government flees to Chungking.

16 Greek rebels announce end of civil war.

21 Federal Judge Medina sentences 10 Communist leaders to 5 years, 11th to 3 years.

24 Cornerstone laid for U. N. headquarters in New York City.

Nov. 18 Vice President Barkley is married to Mrs. Carleton S. Hadley in St. Louis, Mo.

23 David Lilienthal resigns as chairman of Atomic Energy Commission.

30 Chinese Communists capture Chungking.

Dec. 8 Nationalist China moves capital from Chengtu, on mainland, to Taipei, Formosa.

10 Labour government in Australia defeated by Liberal-Country-party coalition.

27 Netherlands transfers sovereignty over Indonesia to Indonesian Republic.

1950 It seemed like a nightmare beginning to repeat itself. Once again the draft boards were calling up boys; the war factories were humming; our men were fighting and dying—this time in Korea. Were we embarking upon World War III? If so, we were doing it under a new flag—the flag of the United Nations. The U.N. was waging collective warfare for the first time to repel Communist aggression. But American troops were bearing the brunt. The nation's spirits sank in the summer as our soldiers were driven back into the tiny Pusan beachhead. The nation's spirits soared (too high) in the autumn when our forces drove spectacularly to the Manchurian border. Whether it was a war or not, there was always that home-front obligato—the craze for nylon shirts, which petered out; the craze for canasta, which lingered . . . the furor over Ingrid Bergman's independent baby; the gasps about Faye Emerson's plunging necklines on TV . . . the argument that raged over Ernest Hemingway's new novel, *Across the River and Into the Trees*: was Hemingway, really, the greatest writer since Shakespeare, as John O'Hara proclaimed him?

Jan. 4 *The* (N. Y.) *Sun* ceases publication; bought by the *New York World-Telegram*.

5 U. S. will keep hands off Formosa, giving no military aid to Chiang Kai-shek, Truman announces.

6 Great Britain recognizes Communist government of China.

13 Yakov A. Malik, Russian delegate, walks out of U. N. Security Council, demanding ouster of Chinese Nationalist delegate.

19 U. S. advocates U. N. action allowing member nations to return ambassadors to Spain; however, this does not mean approval of Franco regime.

21 Alger Hiss found guilty of perjury on two counts. (Sentenced to 5 years in prison Jan. 25.)

26 India becomes independent republic, dropping allegiance to King of England.

- 31 Truman orders development of hydrogen super-bomb.
- Feb. 7 U. S. and Britain recognize semi-independent native government in Indo-China headed by Bao Dai.
- 14 Chinese Communists sign 30-year alliance with Russia.
- 21 U. S. breaks diplomatic relations with Bulgaria on grounds that U. S. Minister and his staff have been victims of "campaign of systematic persecution."
- Hungary gives 15-year prison sentence to Robert A. Vogeler, Jr., American business man, who "confessed" to spying.
- 23 British Labour party returned to power, with majority in House of Commons of only 7.
- Mar. 1 Britain sentences Dr. Klaus Fuchs to 14 years in prison for giving atomic secrets to Russia.
- 7 Judith Coplon and Valentin Gubitchev found guilty in New York of espionage conspiracy.
- 9 Coplon sentenced to 15 years; Gubitchev's 15-year sentence to be suspended if he leaves U. S.
- 12 Belgium holds referendum on return to throne of King Leopold III; 57.68% of voters favor it.
- 26 Owen J. Lattimore named as man whom Sen. Joseph R. McCarthy believes to be "top Soviet" spy in U. S.
- April 6 John Foster Dulles, Republican, named foreign-policy adviser to Secretary of State Acheson.
- 18 U. S. demands apology and indemnity from Russia for shooting down Navy plane over Baltic Sea.
- 27 Herbert Hoover urges reorganization of U. N. without Communist nations.
- May 8 Supreme Court (5-1) upholds non-Communist oath in Taft-Hartley labor law.
- 18 North Atlantic Council sets up permanent executive committee of Deputy Foreign Ministers; approves pooling armed forces.
- 23 General Motors signs with UAW for 5 years of no strikes; grants pensions and raises.
- U. S. arrests Harry Gold, Philadelphia biochemist, as atomic spy with Dr. Klaus Fuchs.
- Western Allies demand dissolution of East German police militia created by Russia; say it is becoming new German army.
- June 5 Supreme Court (9-0) bars segregation of Negroes in 2 Southern universities and (8-0) on railroad dining cars.
- 6 Trygve Lie appeals to 59 nations to admit Communist China to U. N.
- 8 William W. Remington, Department of Commerce economist, indicted for perjury for denying he was ever a Communist.
- 16 David Greenglass, former Army sergeant at Los Alamos atomic plant, arrested.
- 17-18 Navy's flying boat *Caroline Mars* flies 144 persons from Pearl Harbor to San Diego; sets transoceanic passenger record.
- 20 6-nation conference to pool Europe's coal and steel (Schuman plan) opens in Paris.
- 23 University of California discharges 157 for failure to sign non-Communist affirmation.
- July 17 Senate subcommittee (3-2) clears State Department of Sen. McCarthy's charges of Communist infiltration.
- Julius Rosenberg, New York electrical engineer, arrested as atomic spy. (His wife, Ethel, arrested Aug. 11.)
- 22 King Leopold III returns to Belgium's throne after 6-year exile; Socialists riot in protest.
- Aug. 1 Russia returns to U. N. Security Council; Council defeats (8-3) Soviet attempt to seat Chinese Reds.
- U. S. Court of Appeals upholds conspiracy conviction of 11 top U. S. Communists.
- 15 Daughter born to Princess Elizabeth of England.
- Republic of Indonesia proclaimed, replacing United States of Indonesia.
- 25 Truman orders railroads seized to avert nation-wide strike.
- 28 Lee Pressman, former U. S. government official, admits he was Communist in 1934-35 and names 3 others.
- 31 William O'Dwyer quits as Mayor of New York City to become U. S. Ambassador to Mexico.
- Sept. 8 U. S. launches "Point 4" program to help underdeveloped regions of world.
- 10 National Production Authority established to mobilize U. S. economy for war purposes.
- 12 Big Three Foreign Ministers open conference in New York.

- 19 U. S., Britain and France pledge to fight if West Germany is attacked.
- 20 U. S. asks major revision of U. N. to give General Assembly powers to preserve peace.
- 25 New York City drops Police Commissioner William P. O'Brien over cops-gamblers scandal; Thomas F. Murphy, Hiss prosecutor, gets job.
- 30 The Ford Foundation announces grants totaling \$3 million for scientific study of human behaviour.
- Oct. 15 President Truman confers with Gen. MacArthur on Wake Island about Far East policy.
- Nov. 5 U. N. General Assembly revokes ban on sending top diplomats to Franco Spain.
- 30 Russia uses 49th U. N. veto to kill Security Council resolution asking Chinese Communists to withdraw troops from Korea.
Truman appoints Mayor Michael V. DiSalle of Toledo, Ohio, to be Director of Price Stabilization.
- Dec. 5 U. S. Court of Appeal in New York reverses New York conviction of Judith Coplon as Soviet spy; says her "guilt is plain" but her arrest by FBI without warrant was illegal.
- 16 Truman proclaims state of emergency; names Charles E. Wilson Director of Mobilization.
- 19 Truman names Gen. Eisenhower supreme commander of North Atlantic Treaty forces in Europe.

1951 The year opened in gloom. American troops in Korea were taking a terrible beating from the Communists. At home, a war scare bloomed, and people rushed out to buy things they didn't need. But by April a different sort of emotional tempest was sweeping the nation: President Truman had fired General MacArthur from his Far East commands. Hysteria seized many: anger against Truman, hero worship of MacArthur. People wept when the General said, "... I now close my military career and just fade away ..." And by July still another mood had taken possession of the country: wild hope that the Korean warfare would be over any minute. Little did we realize that the Korean armistice negotiations would still be dragging their weary course at year's end. By way of distraction, on the domestic scene, crime and scandal broke out all over the place. There was that famous \$9,540 mink coat that figured in the investigation of "influence" in the Reconstruction Finance

Corporation. There were the "fixed" basketball games: college stars bribed by gamblers. Senator Kefauver invited big shots of the underworld into our parlors via television when he put the nervous hands of Frank Costello on the screen. And at year's end it appeared that quite a few Federal income-tax officials had not been above receiving a little "grease" in their palms.

- Jan. 1 Congress passes \$3.2-billion excess-profits tax (signed Jan. 3).
- 11 Truman asserts power to send troops abroad without asking Congress.
- 18 Owners give John L. Lewis' soft-coal miners wage boost of \$1.60 a day. (Similar boost for hard-coal miners Jan. 26.)
- 25 West Germany gives labor unions 50% voice in management of coal and steel companies in Ruhr.
- 26 U. S. freezes most wages as of Jan. 25, most prices as of highest point reached between Dec. 19-Jan. 25.
- 27 First of series of test atomic explosions takes place in Nevada (others Jan. 28 and Feb. 1).
- Feb. 2 Truman asks Congress to increase taxes by \$10 billion.
- 5 Rail strike halts most trains, including New York commuter trains.
- 8 Truman orders remaining rail strikers fired unless they return to work by Feb. 10; they do.
- 15 Britain nationalizes most of iron and steel industry.
- 27 Government limits wage raises to 10% over level of Jan. 15, 1950.
- Mar. 2 Cost-of-living has risen 1.5% to new record of 181.5%. Million workers to get "escalator" pay raises.
- 4 Barbara Hutton sues for divorce from 4th husband, Prince Igor Troubetzkoy.
- 5 General Motors reports \$834,044,-039 profit for 1950; world record.
- 12 Supreme Court refuses to review Alger Hiss perjury conviction; he faces 5 years in prison.
Senate Crime Investigating Committee opens hearings in New York City (till Mar. 21).
- 19 6 nations initial Schuman plan to pool European coal and steel market.
- Apr. 2 Gen. Eisenhower activates SHAPE (Supreme Headquarters Allied Powers, Europe).

- 4 Senate approves dispatch of 4 Army divisions to Europe; tells Truman to send no more without congressional consent.
- 5 In atomic spy case, Julius and Ethel Rosenberg sentenced to death, Morton Sobell to 30 years, David Greenglass to 15 years.
- 11 Truman removes Gen. MacArthur from all Far East commands; replaces him with Gen. Matthew B. Ridgway.
- 19 MacArthur urges Congress take military measures against Red China.
- 22 Aneurin Bevan resigns as British Minister of Labour, splitting party.
- 23 Czechoslovakia jails AP man William N. Oatis on charges of hostile activities.
- 28 Hungary releases Robert A. Vogeler, American businessman imprisoned as spy for 17 months.
- 30 Iran enacts law for nationalization of oil industry.
- May 3 Senate Armed Services and Foreign Relations Committees open joint inquiry into MacArthur's dismissal.
- 9 77 New York City policemen indicted in bookmaking conspiracy.
- 21 Supreme Court (6-3) upsets "fair trade" price-fixing laws in 45 states.
- June 1 U. S. Court of Appeals in Washington upholds conviction of Judith Coplon for stealing Justice Department secrets.
- 7 U. S. hangs 7 Nazi war criminals—last of 275 doomed in 1946-47 for execution.
- Britain discloses that two of its Foreign Office officials have vanished, maybe defecting to Russia.
- 25 Senate inquiry committees close MacArthur inquiry with no formal report.
- July 2 William N. Oatis "confesses" in Czechoslovakia trial to spying; sentenced (July 4) to 10 years.
- 7 of 11 Communists convicted in 1949 sent to prison; 4 others vanish.
- 11 New York State Court of Appeals upholds releasing school children for religious education.
- 13 Costliest flood in U. S. history hits Kansas City; damage over \$1 billion in 4 states.
- 16 Leopold III of Belgium abdicated in favor of son, Baudouin I.
- 20 Assassin kills King Abdullah of Jordan in Jerusalem.
- Aug. 3 West Point dismisses 90 cadets, including most of football team, for cheating on exams.
- 7 Navy Viking rocket goes up 135 miles; sets record.
- 21 U. S. Navy orders construction of world's first atomic submarine.
- 30 U. S. signs mutual defense treaty with Philippines.
- Truman invokes Taft-Hartley law against copper strike.
- Sept. 8 Japanese peace treaty signed by 49 nations (but not Russia) at San Francisco.
- 12 Gen. Marshall resigns as Secretary of Defense; Robert A. Lovett succeeds him.
- 20 North Atlantic Council, meeting in Ottawa, votes to admit Greece, Turkey.
- 27 Iranian troops seize huge Anglo-Iranian Oil Co.'s refinery at Abadan.
- Oct. 1 U. N. Security Council takes up British-Iranian oil dispute over protest of Iran and Russia.
- 3 Truman announces Russia has exploded 2nd atom bomb; Russia confirms (Oct. 6).
- 8 Egypt announces it will oust British from Suez and Sudan.
- 16 Pakistan's Premier, Liaquat Ali Khan, killed by assassin.
- British, refusing to remove troops from Suez, kill 12 Egyptian rioters.
- 20 Truman nominates Gen. Mark Clark as first Ambassador to Vatican.
- 22 White House discloses 3rd Soviet atomic explosion.
- 28 U. S. tests atomic "baby bomb" in Nevada.
- 31 Princess Elizabeth and Prince Philip visit Washington.
- Nov. 5 U. S., Britain and France ask U. N. to survey possibility of free elections throughout Germany.
- 28 NATO Conference in Rome ends after decision on 100 divisions by 1954.
- Dec. 24 Libya becomes independent kingdom.
- 28 4 U. S. airmen forced down in Hungary (Nov. 19) released after payment of fines by U. S. government.
- 29 U. S. Atomic Energy Commission announces production of electric power from atomic energy.

SCIENCE



MEASURES AND WEIGHTS

UNITS OF LENGTH

Metric System

The meter was originally intended to be one ten-millionth of the earth's quadrant, a quadrant being one-quarter of a circumference. However, because of the difficulty of determining such a length with accuracy, this definition was abandoned. The meter is now considered to be the distance at 0°C between two microscopic marks on the International Prototype Meter, a platinum-iridium bar, kept by the International Bureau of Weights and Measures at Sèvres, France, a suburb of Paris.

In 1927, the International Conference on Weights and Measures adopted a secondary definition of the meter in terms of light-waves. According to this definition, one meter is equivalent to 1,553,164.13 wave lengths of the red light from cadmium.

Unit	Comparison	English equivalent
Millimeter (mm)	.001 meter	.0394 inch
Centimeter (cm)	.01 meter	.3937 inch
Decimeter (dm)	.1 meter	3.937 inches
Meter (m)		3.2808 feet
Dekameter (dkm)	10 meters	32.8083 feet
Hectometer (hm)	100 meters	328.0833 feet
Kilometer (km)	1000 meters	.62137 mile

English System

According to legend, the yard was established by Henry I as the distance from the point of his nose to the end of his thumb when his arm was outstretched. The British Imperial Yard was defined in 1878 by the Weights and Measures Act as the distance at 62°F between two fine lines on gold studs sunk in a bronze bar known as the "No. 1 Standard Yard." This is equivalent to .914399 meter. In the United States, the yard is defined in terms of the meter, using as a standard the U. S. Prototype Meter. According to this definition, the yard is 3600/3937 (or .914402) meter, slightly longer than the British Imperial Yard.

Unit	Comparison	Metric equivalent
Inch (in.)		25.4001 millimeters
Foot (ft)	12 inches	.3048 meter
Yard (yd)	36 inches 3 feet	.9144 meter
Rod (rd)	16½ feet 5½ yards	5.0292 meters
Furlong (fur.)	660 feet 220 yards 40 rods	201.1684 meters
Mile (mi)*	5280 feet 1760 yards 320 rods 8 furlongs	1.6093 kilometers

* Known as statute mile. See nautical mile under Miscellaneous Units.

UNITS OF AREA

Metric System

Unit	Comparison	English equivalent
Square millimeter (mm²)	.000001 m²	.0015 sq in.
Square centimeter (cm²)	.0001 m²	.155 sq in.
Square decimeter (dm²)	.01 m²	15.5 sq in.
square meter (m²)*		10.7639 sq ft
Square dekameter (dkm²)†	100 m²	3.9537 sq rd
Square hectometer (hm²)‡	10,000 m²	2.471 acres
Square kilometer (km²)	1,000,000 m²	.3861 sq mi

English System

Unit	Comparison	Metric equivalent
Square inch (sq in.)		6.4516 cm²
Square foot (sq ft)	144 sq in.	.0929 m²
Square yard (sq yd)	1296 sq in. 9 sq ft	.8361 m²
Square rod (sq rd)	272¼ sq ft 30¼ sq yds	25.293 m²
Acre	43,560 sq ft 4,840 sq yd 160 sq rd	.4047 ha
Square mile (sq mi)	27,878,400 sq ft 3,097,600 sq yd 102,400 sq rd 640 acres	2.5900 km²

* Also known as a centare (ca).

† Also known as an are (a).

‡ Also known as a hectare (ha).

UNITS OF VOLUME

Metric System

Unit	Comparison	English equivalent
Cubic millimeter (mm³)	.000000001 m³	.00006 cu in.
Cubic centimeter (cm³)	.000001 m³	.061 cu in.
Cubic decimeter (dm³)	.001 m³	61.0234 cu in.
Cubic meter (m³)*		35.3145 cu ft

* Also known as a stere (s).

English System

Unit	Comparison	Metric equivalent
Cubic inch (cu in.)		16.3872 cm³
Cubic foot (cu ft)	1728 cu in.	.0283 m³
Cubic yard (cu yd)	46,656 cu in. 27 cu ft	.7646 m³
Cord (cd)	128 cu ft	3.6246 m³

UNITS OF WEIGHT OR MASS

The term *mass* denotes the amount of matter contained in an object, while the term *weight* denotes the gravitational pull of the earth on the object. For practical purposes, the two terms are synonymous.

Metric System

The gram was originally intended to be equal to the mass of one cubic centimeter of pure water at 4°C. However, because of

the difficulty of making exact measurement, a small error was made; and it has since been found that a kilogram of pure water occupies 1.000028 cubic decimeters. The standard for the kilogram is a platinum-iridium cylinder, called the International Prototype Kilogram, which is kept at the International Bureau of Weights and Measures in France.

Unit	Comparison	Avdp.	English equivalents Troy	Apoth.
Milligram (mg)	.001 gram	.0154 grain	.0154 grain	.0154 grain
Centigram (cg)	.01 gram	.1543 grain	.1543 grain	.1543 grain
Decigram (dg)	.1 gram	1.5432 grains	1.5432 grains	1.5432 grains
Gram (g)		.0353 ounce	.0322 ounce	.0322 ounce
Dekagram (dkg)	10 grams	.3527 ounce	.3215 ounce	.3215 ounce
Hectogram (hg)	100 grams	3.5274 ounces	3.2151 ounces	3.2151 ounces
Kilogram (kg)	1000 grams	2.2046 pounds	2.6792 pounds	2.6792 pounds
Metric ton (t)	1000 kg	1.1023 tons*		

* Short tons. A metric ton is equivalent to .9842 long ton.

English System

The English System is complicated by the existence of three different kinds of weight: *avoirdupois weight*, used for common purposes; *troy weight*, used for weighing gold, silver, etc.; and *apothecaries weight*, used for making up medical prescriptions.

The British Imperial Pound (*avoirdupois*) is defined as the mass of a pure plati-

num cylinder kept by the Standards Department of the Board of Trade. In the United States, the pound (*avoirdupois*) is defined in terms of the kilogram, using as a standard the U. S. Prototype Kilogram. According to this definition, the pound is equal to .4535924277 kilogram, making it infinitesimally smaller than the British Imperial Pound.

Avoirdupois Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Dram (dr avdp)	27.3438 grains	1.7718 grams
Ounce (oz avdp)	16 drams	28.3495 grams
	437.5 grains	
Pound (lb avdp)	7000 grains	.4536 kilogram
	256 drams	
	16 ounces	
Hundredweight (cwt)*	100 pounds	45.3592 kilograms
Ton (tn)†	2000 pounds	.9072 metric ton

* Known as the short hundredweight, which is in use in the United States and Canada. Great Britain uses the long hundredweight (112 lb or 50.8024 kg).

† Known as the short ton, which is in use in the United States and Canada. Great Britain uses the long ton (2240 lb or 1.01605 metric tons).

Troy Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Pennyweight (dwt)	24 grains	1.5552 grams
Ounce (oz t)	480 grains	31.1035 grams
	20 pennyweights	
Pound (lb t)*	5760 grains	.3732 kilogram
	240 pennyweights	
	12 ounces	

* Declared Mlegal in Great Britain.

Apothecaries Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Scruple (s ap or ℥)	20 grains	1.296 grams
Dram (dr ap or ℥)	60 grains	3.8879 grams
	3 scruples	
Ounce (oz ap or ℥)	480 grains	31.1035 grams
	24 scruples	
	8 drams	
Pound (lb ap)	5760 grains	.3732 kilogram
	288 scruples	
	96 drams	
	12 ounces	

UNITS OF CAPACITY

Metric System

The liter is a secondary unit of capacity defined as the volume occupied by one kilogram of pure water at 4°C. It was intended that the liter should exactly equal one cubic decimeter, but as an error was made in measurement, has since been found to equal 1.000028 cubic decimeters.

Unit	Comparison	English equivalents Liquid	Dry
Milliliter (ml)	.001 liter	.0338 fl oz	.0018 pt
Centiliter (cl)	.01 liter	.3381 fl oz	.0182 pt
Deciliter (dl)	.1 liter	3.3815 fl oz	.1816 pt
Liter (l)		1.0567 qt	.9081 qt
Dekaliter (dkl)	10 liters	2.6418 gal	1.1351 pk
Hectoliter (hl)	100 liters	26.4178 gal	2.8378 bu

English System

In Great Britain, the standard unit of capacity for measuring both liquid and dry commodities is the British Imperial Gallon. It is defined as the volume of ten pounds of pure water at 62°F and contains 277.418 cubic inches. The bushel is defined as eight gallons (2218.192 cubic inches).

In the United States, there are two separate standards. The unit for measuring liquids is the gallon, which is defined as 231 cubic inches; the unit for measuring dry commodities is the bushel, which is defined as 2150.42 cubic inches.

UNITS OF CIRCULAR MEASURE

Unit	Comparison
Second (")	
Minute (')	60 seconds
Degree (°)	60 minutes
Right angle	90 degrees
Straight angle	180 degrees
Circle	360 degrees

COMMON FORMULAS

Circumference

Circle: $C = \pi d$, in which π is 3.1416 and d the diameter.

Area

Triangle: $A = \frac{ab}{2}$, in which a is the base and b the height.

Square: $A = a^2$, in which a is one of the sides.

Rectangle: $A = ab$, in which a is the base and b the height.

Trapezoid: $A = \frac{h(a+b)}{2}$, in which h is the height, a the longer parallel side, and b the shorter.

Regular pentagon: $A = 1.720a^2$, in which a is one of the sides.

Regular hexagon: $A = 2.598a^2$, in which a is one of the sides.

Regular octagon: $A = 4.828a^2$, in which a is one of the sides.

Circle: $A = \pi r^2$, in which π is 3.1416 and r the radius.

Volume

Cube: $V = a^3$, in which a is one of the edges.

Rectangular prism: $V = abc$, in which a is the length, b the width, and c the depth.

Pyramid: $V = \frac{Ah}{3}$, in which A is the area of the base and h the height.

Liquid Measure (U. S.)

Unit	Comparison	Cubic inches	Metric equivalent
Minim (min or m)*		.0038	.0616 ml
Fluid dram (fl dr)	60 min	.2256	3.6966 ml
Fluid ounce (fl oz)	8 fl dr	1.8047	29.5729 ml
Gill (gi)	32 fl dr	7.2188	118.292 ml
	4 fl oz		
Pint (pt)	16 fl oz	28.875	.4732 liter
	4 gi		
Quart (qt)	32 fl oz	57.75	.9463 liter
	8 gi		
	2 pt		
Gallon (gal)	32 gi	231	3.7853 liters
	8 pt		
	4 qt		

* Approximately one drop.

Dry Measure (U. S.)

Unit	Comparison	Cubic inches	Metric equivalent
Pint (pt)		33.6003	.5506 liter
Quart (qt)	2 pints	67.2006	1.1012 liters
Peck (pk)	16 pints	537.605	8.8096 liters
	8 quarts		
Bushel (bu)	64 pints	2150.42	35.2383 liters
	32 quarts		
	4 pecks		

Cylinder: $V = \pi r^2 h$, in which π is 3.1416, r the radius of the base, and h the height.

Cone: $V = \frac{\pi r^2 h}{3}$, in which π is 3.1416, r the radius of the base, and h the height.

Sphere: $V = \frac{4\pi r^3}{3}$, in which π is 3.1416 and r the radius.

Miscellaneous

Speed per second acquired by falling body: $v = 32t$, in which t is the time in seconds.

Distance in feet traveled by falling body: $d = 16t^2$, in which t is the time in seconds.

Speed of sound in feet per second through any given temperature of air:

$V = \frac{1087\sqrt{273+t}}{16.52}$, in which t is the temperature Centigrade.

Cost per hour of operation of electrical device: $C = \frac{Wtc}{1000}$, in which W is the number of watts, t the time in hours, and c the cost per kilowatt-hour.

Conversion of matter into energy (Einstein's Theorem): $E = mc^2$, in which E is the energy in ergs, m the mass of the matter in grams, and c the speed of light in centimeters per second. ($c^2 = 9 \cdot 10^{20}$).

Abbreviations

The National Bureau of Standards recommends that the period be omitted after all abbreviations of units unless the

abbreviation forms an English word, and that the same abbreviation be used for both singular and plural.

FAHRENHEIT AND CENTIGRADE SCALES

Zero on the Fahrenheit scale represents the temperature produced by the mixing of equal weights of snow and common salt.

Absolute zero is theoretically the lowest possible temperature, the point at which all molecular motion would cease.

	F	C
Boiling point of water	212°	100°
Freezing point of water	32°	0°
Absolute zero	-459.6°	-273.1°

To convert Fahrenheit to Centigrade, subtract 32 and multiply by 5/9.

To convert Centigrade to Fahrenheit, multiply by 9/5 and add 32.

ROMAN NUMERALS

Roman numerals are expressed by letters of the alphabet and are rarely used today except for formality or variety.

There are three basic principles for reading Roman numerals:

1. A letter repeated once or twice repeats its value that many times. (XXX=30, CC=200, etc.).

2. One or more letters placed after another letter of greater value increases the greater value by the amount of the smaller. (VI=6, LXX=70, MCC=1200, etc.).

3. A letter placed before another letter of greater value decreases the greater value by the amount of the smaller. (IV=4, XC=90, CM=900, etc.).

Letter	Value	Letter	Value
I	1	LX	60
II	2	LXX	70
III	3	LXXX	80
IV	4	XC	90
V	5	C	100
VI	6	D	500
VII	7	M	1,000
VIII	8	V	5,000
IX	9	X	10,000
X	10	L	50,000
XX	20	C	100,000
XXX	30	D	500,000
XL	40	M	1,000,000
L	50		

SIMPLE INTEREST FOR \$100

To find the interest for any amount of money, move the decimal point of that amount two places to the left and multi-

ply by the figure obtained from the table.

For figuring simple interest, the year is considered to have 360 days.

	1 Day	7 Days	1 Month	3 Months	6 Months	1 Year
2%	\$.00556	\$.03889	\$.16667	\$.50000	\$1.00000	\$2.00000
2½%	.00694	.04861	.20833	.62500	1.25000	2.50000
3%	.00833	.05833	.25000	.75000	1.50000	3.00000
3½%	.00972	.06806	.29167	.87500	1.75000	3.50000
4%	.01111	.07778	.33333	1.00000	2.00000	4.00000
4½%	.01250	.08750	.37500	1.12500	2.25000	4.50000
5%	.01389	.09722	.41667	1.25000	2.50000	5.00000
5½%	.01528	.10694	.45833	1.37500	2.75000	5.50000
6%	.01667	.11667	.50000	1.50000	3.00000	6.00000
6½%	.01806	.12639	.54167	1.62500	3.25000	6.50000
7%	.01944	.13611	.58333	1.75000	3.50000	7.00000
8%	.02222	.15556	.66667	2.00000	4.00000	8.00000
9%	.02500	.17500	.75000	2.25000	4.50000	9.00000
10%	.02778	.19444	.83333	2.50000	5.00000	10.00000

MISCELLANEOUS UNITS

AGATE: Originally a measurement of type size (5½ points). Now equal to 1/14 inch. Used in printing for measuring column length.

ANGSTROM (A or λ): .0001 micron or .0000001 mm. Used for measuring length of light waves.

ASTRONOMICAL UNIT (A.U.): 93,003,000 miles, the average distance of the earth from the sun. Used in astronomy.

BALE: A large bundle of goods. In the U. S., the approximate weight of a bale of cotton is 500 pounds. The weight varies in other countries.

BARREL (bbl): For liquids, $31\frac{1}{2}$ gallons or 7326.5 cubic inches. For dry commodities, except cranberries: 105 dry quarts or 7056 cubic inches. For cranberries: 5826 cubic inches.

BOARD FOOT (fbm): 144 cubic inches (12 in. x 12 in. x 1 in.). Used for lumber.

BOLT: 40 yards. Used for measuring cloth.

CABLE: About 100 fathoms or 600 feet. Used for measuring lengths of cable.

CARAT (c): 200 milligrams or 3.086 grains troy. Originally the weight of a seed of the carob tree in the Mediterranean region. Used for weighing precious stones. Also a measure of the purity of gold alloy, indicating how many parts out of 24 are pure. Eighteen carat gold, for example, is $\frac{3}{4}$ pure.

CHAIN (ch): a chain 66 feet or one-tenth of a furlong in length, divided into 100 parts called links. One mile is equal to 80 chains. Used in surveying and sometimes called Gunter's chain.

CUBIT: 18 inches or 45.72 cm. Derived from distance between elbow and tip of middle finger.

ELL, ENGLISH: $1\frac{1}{4}$ yards or $1/32$ bolt. Used for measuring cloth.

FATHOM (fath): 6 feet or 1.8288 m. Derived from the distance to which a man can stretch his arms. Used for measuring cables and depths of water.

FREIGHT TON (also called MEASURE-MENT TON): 40 cubic feet of merchandise. Used for cargo freight.

GREAT GROSS: 12 gross or 1728.

GROSS: 12 dozen or 144.

HAND: 4 inches or 10.16 cm. Derived from the width of the hand. Used for measuring the height of horses at withers.

HOGSHEAD (hhd): 2 liquid barrels or 14,653 cubic inches.

HORSEPOWER: The power needed to lift 33,000 pounds a distance of one foot in one minute (about $1\frac{1}{2}$ times the power an average horse can exert). Used for measuring the power of steam engines, etc.

KNOT: Not a distance, but the rate of speed of one nautical mile per hour. Used for measuring speed of ships.

LEAGUE: Rather indefinite and varying measure, but usually estimated at 3 miles in English-speaking countries.

LIGHT-YEAR: 5,880,000,000,000 miles, the distance light travels in a year at the rate of 186,273 miles per second. (If an astronomical unit were represented by one inch, a light-year would be represented by about one mile.) Used for measurements in interstellar space.

LINK: One-hundredth of a chain or 7.92 inches. Used in surveying.

MAGNUM: Two-quart bottle. Used for measuring wine, etc.

MICRON (μ): .001 millimeter. Used for scientific measurements.

MIL: .001 inch. Used for measuring size of wire. The area of a cross-section of wire is usually expressed in circular mils, a circular mil being the area of a circle one mil in diameter. A wire one inch in diameter has a cross-section area of one million circular mils.

MILLIMICRON ($m\mu$): .001 micron or .000001 mm. Used for scientific measurements.

NAUTICAL MILE (also called GEOGRAPHICAL or SEA MILE): Equal to a minute or $1/21600$ of a great circle of the earth. Length varies in different countries. In Great Britain, it is 6080 feet or 1853.2 meters, and in the United States, it is 6080.2 feet or 1853.248 meters. The International Hydrographic Bureau proposed in 1929 a length of 1852 meters or 6,076.097 feet, which has been adopted by several countries.

PARSEC: Approximately 3.26 light-years or 19.2 trillion miles. Term is combination of first syllables of *parallax* and *second*, and distance is that of imaginary star when lines drawn from it to both earth and sun form a maximum angle or parallax of one second ($1/3600$ degree). Used for measuring interstellar distances.

PI (π): 3.14159265+. The ratio of the circumference of a circle to its diameter. For practical purpose, the value is used to four decimal places: 3.1416.

PICA: $\frac{1}{6}$ inch or 12 points. Used in printing for measuring column width, etc.

PIPE: 2 hogsheads. Used for measuring wine and other liquids.

POINT: .013837 (approximately $1/72$) inch or $1/12$ pica. Used in printing for measuring type size.

QUINTAL: 100,000 grams or 220.46 pounds avoirdupois.

QUIRE: Used for measuring paper. Sometimes 24 sheets but more often 25. There are 20 quires in a ream.

REAM: Used for measuring paper. Sometimes 480 sheets, but more often 500 sheets.

SCORE: 20 units.

SPAN: 9 inches or 22.86 cm. Derived from the distance between the end of the thumb and the end of the little finger when both are outstretched.

STONE: Legally 14 pounds avoirdupois in Great Britain.

TOWNSHIP: U. S. land measurement of almost 36 square miles. The south border is 6 miles long. The east and west borders, also 6 miles long, follow the meridians, making the north border slightly less than six miles long. Used in surveying.

TUN: 252 gallons, but often larger. Used for measuring wine and other liquids.

DECIMAL EQUIVALENTS OF COMMON FRACTIONS

$\frac{1}{2}$	.5000	$\frac{1}{4}$	.2500	$\frac{3}{4}$	.7500	$\frac{1}{8}$	.1250
$\frac{1}{3}$	.3333	$\frac{1}{5}$	.2000	$\frac{2}{5}$	.4000	$\frac{3}{8}$	.3750
$\frac{1}{4}$	.2500	$\frac{2}{5}$	.4000	$\frac{3}{5}$	.6000	$\frac{5}{8}$	.6250
$\frac{1}{5}$	.2000	$\frac{3}{5}$	.6000	$\frac{4}{5}$	.8000	$\frac{7}{8}$	.8750
$\frac{1}{6}$	.1667	$\frac{4}{5}$	.8000	$\frac{1}{2}$	.5000	$\frac{1}{4}$	.2500
$\frac{1}{7}$	.1429	$\frac{1}{2}$	.5000	$\frac{1}{3}$	.3333	$\frac{1}{5}$	.2000
$\frac{1}{8}$	.1250	$\frac{1}{3}$	.3333	$\frac{1}{4}$	.2500	$\frac{1}{6}$	.1667
$\frac{1}{9}$	.1111	$\frac{1}{4}$	.2500	$\frac{1}{5}$	.2000	$\frac{1}{7}$	.1429
$\frac{1}{10}$	.1000	$\frac{1}{5}$	.2000	$\frac{1}{6}$	.1667	$\frac{1}{8}$	.1250
$\frac{1}{11}$	.0909	$\frac{1}{6}$	.1667	$\frac{1}{7}$	.1429	$\frac{1}{9}$	.1111
$\frac{1}{12}$	.0833	$\frac{1}{7}$	.1429	$\frac{1}{8}$	.1250	$\frac{1}{10}$	.1000
$\frac{1}{13}$	.0769	$\frac{1}{8}$	.1250	$\frac{1}{9}$	.1111	$\frac{1}{11}$	.0909
$\frac{1}{14}$	.0714	$\frac{1}{9}$	.1111	$\frac{1}{10}$	.1000	$\frac{1}{12}$	.0833
$\frac{1}{15}$	.0667	$\frac{1}{10}$	.1000	$\frac{1}{11}$	.0909	$\frac{1}{13}$	.0769
$\frac{1}{16}$	.0625	$\frac{1}{11}$	.0909	$\frac{1}{12}$	.0833	$\frac{1}{14}$	.0714
$\frac{1}{17}$	.0588	$\frac{1}{12}$	.0833	$\frac{1}{13}$	.0769	$\frac{1}{15}$	.0667
$\frac{1}{18}$	.0556	$\frac{1}{13}$	.0769	$\frac{1}{14}$	.0714	$\frac{1}{16}$	.0625
$\frac{1}{19}$	.0526	$\frac{1}{14}$	.0714	$\frac{1}{15}$	.0667	$\frac{1}{17}$	.0588
$\frac{1}{20}$	.0500	$\frac{1}{15}$	.0667	$\frac{1}{16}$	.0625	$\frac{1}{18}$	.0556
$\frac{1}{21}$	.0476	$\frac{1}{16}$	.0625	$\frac{1}{17}$	.0588	$\frac{1}{19}$	.0526
$\frac{1}{22}$	.0455	$\frac{1}{17}$	.0588	$\frac{1}{18}$	.0556	$\frac{1}{20}$	.0500
$\frac{1}{23}$	.0435	$\frac{1}{18}$	.0556	$\frac{1}{19}$	.0526	$\frac{1}{21}$	.0476
$\frac{1}{24}$	.0417	$\frac{1}{19}$	.0526	$\frac{1}{20}$	.0500	$\frac{1}{22}$	.0455
$\frac{1}{25}$	.0400	$\frac{1}{20}$	.0500	$\frac{1}{21}$	.0476	$\frac{1}{23}$	.0435
$\frac{1}{26}$	.0385	$\frac{1}{21}$	.0476	$\frac{1}{22}$	.0455	$\frac{1}{24}$	.0417
$\frac{1}{27}$	.0370	$\frac{1}{22}$	.0455	$\frac{1}{23}$	.0435	$\frac{1}{25}$	.0400
$\frac{1}{28}$	.0357	$\frac{1}{23}$	.0435	$\frac{1}{24}$	.0417	$\frac{1}{26}$	.0385
$\frac{1}{29}$	.0345	$\frac{1}{24}$	.0417	$\frac{1}{25}$	.0400	$\frac{1}{27}$	.0370
$\frac{1}{30}$	.0333	$\frac{1}{25}$	.0400	$\frac{1}{26}$	.0385	$\frac{1}{28}$	.0357
$\frac{1}{31}$	.0323	$\frac{1}{26}$	.0385	$\frac{1}{27}$	.0370	$\frac{1}{29}$	.0345
$\frac{1}{32}$	.0313	$\frac{1}{27}$	.0370	$\frac{1}{28}$	.0357	$\frac{1}{30}$	.0333
$\frac{1}{33}$	.0303	$\frac{1}{28}$	.0357	$\frac{1}{29}$	.0345	$\frac{1}{31}$	.0323
$\frac{1}{34}$	.0294	$\frac{1}{29}$	.0345	$\frac{1}{30}$	.0333	$\frac{1}{32}$	.0313
$\frac{1}{35}$	.0286	$\frac{1}{30}$	.0333	$\frac{1}{31}$	.0323	$\frac{1}{33}$	.0303
$\frac{1}{36}$	.0278	$\frac{1}{31}$	.0323	$\frac{1}{32}$	.0313	$\frac{1}{34}$	.0294
$\frac{1}{37}$	.0271	$\frac{1}{32}$	.0313	$\frac{1}{33}$	.0303	$\frac{1}{35}$	.0286
$\frac{1}{38}$	.0263	$\frac{1}{33}$	.0303	$\frac{1}{34}$	.0294	$\frac{1}{36}$	.0278
$\frac{1}{39}$	.0256	$\frac{1}{34}$	.0294	$\frac{1}{35}$	.0286	$\frac{1}{37}$	.0271
$\frac{1}{40}$	.0250	$\frac{1}{35}$	.0286	$\frac{1}{36}$	.0278	$\frac{1}{38}$	.0263
$\frac{1}{41}$	.0244	$\frac{1}{36}$	.0278	$\frac{1}{37}$	.0263	$\frac{1}{39}$	.0256
$\frac{1}{42}$	.0238	$\frac{1}{37}$	.0263	$\frac{1}{38}$	.0256	$\frac{1}{40}$	.0250
$\frac{1}{43}$	.0233	$\frac{1}{38}$	.0256	$\frac{1}{39}$	.0250	$\frac{1}{41}$	.0244
$\frac{1}{44}$	.0227	$\frac{1}{39}$	.0250	$\frac{1}{40}$	.0244	$\frac{1}{42}$	.0238
$\frac{1}{45}$	.0222	$\frac{1}{40}$	.0244	$\frac{1}{41}$	.0238	$\frac{1}{43}$	.0233
$\frac{1}{46}$	.0217	$\frac{1}{41}$	.0238	$\frac{1}{42}$	.0233	$\frac{1}{44}$	.0227
$\frac{1}{47}$	.0213	$\frac{1}{42}$	.0233	$\frac{1}{43}$	.0227	$\frac{1}{45}$	.0217
$\frac{1}{48}$	.0208	$\frac{1}{43}$	.0227	$\frac{1}{44}$	.0222	$\frac{1}{46}$	.0213
$\frac{1}{49}$	.0204	$\frac{1}{44}$	.0222	$\frac{1}{45}$	.0217	$\frac{1}{47}$	.0208
$\frac{1}{50}$	.0200	$\frac{1}{45}$	.0217	$\frac{1}{46}$	.0213	$\frac{1}{48}$	.0208
$\frac{1}{51}$	.0196	$\frac{1}{46}$	.0213	$\frac{1}{47}$	.0208	$\frac{1}{49}$	.0204
$\frac{1}{52}$	.0192	$\frac{1}{47}$	.0208	$\frac{1}{48}$	.0204	$\frac{1}{50}$	.0200
$\frac{1}{53}$	.0189	$\frac{1}{48}$	.0204	$\frac{1}{49}$	.0200	$\frac{1}{51}$	.0196
$\frac{1}{54}$	.0185	$\frac{1}{49}$	.0200	$\frac{1}{50}$	.0196	$\frac{1}{52}$	.0192
$\frac{1}{55}$	.0182	$\frac{1}{50}$	.0196	$\frac{1}{51}$	.0192	$\frac{1}{53}$	.0189
$\frac{1}{56}$	.0179	$\frac{1}{51}$	.0192	$\frac{1}{52}$	.0189	$\frac{1}{54}$	.0185
$\frac{1}{57}$	.0175	$\frac{1}{52}$	.0189	$\frac{1}{53}$	.0185	$\frac{1}{55}$	.0182
$\frac{1}{58}$	.0172	$\frac{1}{53}$	.0185	$\frac{1}{54}$	.0182	$\frac{1}{56}$	.0179
$\frac{1}{59}$	.0169	$\frac{1}{54}$	.0182	$\frac{1}{55}$	.0179	$\frac{1}{57}$	.0175
$\frac{1}{60}$	.0167	$\frac{1}{55}$	.0179	$\frac{1}{56}$	.0175	$\frac{1}{58}$	.0172
$\frac{1}{61}$	.0164	$\frac{1}{56}$	.0175	$\frac{1}{57}$	.0172	$\frac{1}{59}$	.0169
$\frac{1}{62}$	.0161	$\frac{1}{57}$	.0172	$\frac{1}{58}$	.0169	$\frac{1}{60}$	.0167
$\frac{1}{63}$	.0159	$\frac{1}{58}$	.0169	$\frac{1}{59}$	.0164	$\frac{1}{61}$	.0161
$\frac{1}{64}$	.0156	$\frac{1}{59}$	.0164	$\frac{1}{60}$	.0161	$\frac{1}{62}$	.0159
$\frac{1}{65}$	.0154	$\frac{1}{60}$	.0161	$\frac{1}{61}$	.0159	$\frac{1}{63}$	.0156
$\frac{1}{66}$	.0152	$\frac{1}{61}$	.0159	$\frac{1}{62}$	.0156	$\frac{1}{64}$	.0154
$\frac{1}{67}$	.0150	$\frac{1}{62}$	.0156	$\frac{1}{63}$	.0154	$\frac{1}{65}$	.0152
$\frac{1}{68}$	.0148	$\frac{1}{63}$	.0154	$\frac{1}{64}$	.0152	$\frac{1}{66}$	.0150
$\frac{1}{69}$	.0146	$\frac{1}{64}$	.0152	$\frac{1}{65}$	.0150	$\frac{1}{67}$	.0148
$\frac{1}{70}$	.0143	$\frac{1}{65}$	.0150	$\frac{1}{66}$	.0148	$\frac{1}{68}$	.0146
$\frac{1}{71}$	.0142	$\frac{1}{66}$	.0148	$\frac{1}{67}$	.0146	$\frac{1}{69}$	.0143
$\frac{1}{72}$	.0140	$\frac{1}{67}$	.0146	$\frac{1}{68}$	.0143	$\frac{1}{70}$	.0142
$\frac{1}{73}$	.0138	$\frac{1}{68}$	.0143	$\frac{1}{69}$	.0142	$\frac{1}{71}$	.0140
$\frac{1}{74}$	.0137	$\frac{1}{69}$	.0142	$\frac{1}{70}$	.0140	$\frac{1}{72}$	.0138
$\frac{1}{75}$	.0136	$\frac{1}{70}$	.0140	$\frac{1}{71}$	.0138	$\frac{1}{73}$	.0137
$\frac{1}{76}$	.0135	$\frac{1}{71}$	.0138	$\frac{1}{72}$	.0137	$\frac{1}{74}$	.0136
$\frac{1}{77}$	.0134	$\frac{1}{72}$	.0137	$\frac{1}{73}$	.0136	$\frac{1}{75}$	.0135
$\frac{1}{78}$	.0133	$\frac{1}{73}$	.0136	$\frac{1}{74}$	.0135	$\frac{1}{76}$	.0134
$\frac{1}{79}$	.0132	$\frac{1}{74}$	.0135	$\frac{1}{75}$	.0134	$\frac{1}{77}$	.0133
$\frac{1}{80}$	.0132	$\frac{1}{75}$	.0134	$\frac{1}{76}$	.0133	$\frac{1}{78}$	.0132
$\frac{1}{81}$	.0131	$\frac{1}{76}$	.0133	$\frac{1}{77}$	.0132	$\frac{1}{79}$	.0131
$\frac{1}{82}$	.0130	$\frac{1}{77}$	.0132	$\frac{1}{78}$	.0131	$\frac{1}{80}$	.0130
$\frac{1}{83}$	.0129	$\frac{1}{78}$	.0131	$\frac{1}{79}$	.0130	$\frac{1}{81}$	.0129
$\frac{1}{84}$	.0129	$\frac{1}{79}$	.0130	$\frac{1}{80}$	.0129	$\frac{1}{82}$	.0129
$\frac{1}{85}$	.0128	$\frac{1}{80}$	.0129	$\frac{1}{81}$	.0128	$\frac{1}{83}$	.0129
$\frac{1}{86}$	.0128	$\frac{1}{81}$	.0128	$\frac{1}{82}$	.0128	$\frac{1}{84}$	.0128
$\frac{1}{87}$	.0127	$\frac{1}{82}$	.0128	$\frac{1}{83}$	.0127	$\frac{1}{85}$	.0128
$\frac{1}{88}$	.0127	$\frac{1}{83}$	.0127	$\frac{1}{84}$	.0127	$\frac{1}{86}$	.0127
$\frac{1}{89}$	.0126	$\frac{1}{84}$	.0127	$\frac{1}{85}$	.0126	$\frac{1}{87}$	.0127
$\frac{1}{90}$	.0126	$\frac{1}{85}$	.0126	$\frac{1}{86}$	.0126	$\frac{1}{88}$	.0126
$\frac{1}{91}$	.0125	$\frac{1}{86}$	.0126	$\frac{1}{87}$	.0125	$\frac{1}{89}$	.0126
$\frac{1}{92}$	.0125	$\frac{1}{87}$	.0125	$\frac{1}{88}$	.0125	$\frac{1}{90}$	.0125
$\frac{1}{93}$	.0125	$\frac{1}{88}$	.0125	$\frac{1}{89}$	.0125	$\frac{1}{91}$	.0125
$\frac{1}{94}$	.0125	$\frac{1}{89}$	.0125	$\frac{1}{90}$	.0125	$\frac{1}{92}$	.0125
$\frac{1}{95}$	.0125	$\frac{1}{90}$	.0125	$\frac{1}{91}$	.0125	$\frac{1}{93}$	.0125
$\frac{1}{96}$	.0125	$\frac{1}{91}$	.0125	$\frac{1}{92}$	.0125	$\frac{1}{94}$	.0125
$\frac{1}{97}$	.0125	$\frac{1}{92}$	.0125	$\frac{1}{93}$	.0125	$\frac{1}{95}$	.0125
$\frac{1}{98}$	.0125	$\frac{1}{93}$	.0125	$\frac{1}{94}$	.0125	$\frac{1}{96}$	.0125
$\frac{1}{99}$	.0125	$\frac{1}{94}$	.0125	$\frac{1}{95}$	.0125	$\frac{1}{97}$	.0125
$\frac{1}{100}$	.0125	$\frac{1}{95}$	.0125	$\frac{1}{96}$	.0125	$\frac{1}{98}$	.0125
$\frac{1}{101}$	.0124	$\frac{1}{96}$	.0125	$\frac{1}{97}$	.0124	$\frac{1}{99}$	.0125
$\frac{1}{102}$	.0124	$\frac{1}{97}$	.0124	$\frac{1}{98}$	.0124	$\frac{1}{100}$	.0124
$\frac{1}{103}$	.0124	$\frac{1}{98}$	.0124	$\frac{1}{99}$	.0124	$\frac{1}{101}$	.0124
$\frac{1}{104}$	.0124	$\frac{1}{99}$	.0124	$\frac{1}{100}$	.0124	$\frac{1}{102}$	.0124
$\frac{1}{105}$	.0124	$\frac{1}{100}$	.0124	$\frac{1}{101}$	.0124	$\frac{1}{103}$	.0124
$\frac{1}{106}$	.0123	$\frac{1}{101}$	.0124	$\frac{1}{102}$	.0123	$\frac{1}{104}$	.0124
$\frac{1}{107}$	.0123	$\frac{1}{102}$	.0123	$\frac{1}{103}$	.0123	$\frac{1}{105}$	.0123
$\frac{1}{108}$	.0123	$\frac{1}{103}$	.0123	$\frac{1}{104}$	.0123	$\frac{1}{106}$	.0123
$\frac{1}{109}$	.0123	$\frac{1}{104}$	.0123	$\frac{1}{105}$	.0123	$\frac{1}{107}$	.0123
$\frac{1}{110}$	.0123	$\frac{1}{105}$	.0123	$\frac{1}{106}$	.0123	$\frac{1}{108}$	.0123
$\frac{1}{111}$	.0123	$\frac{1}{106}$	.0123	$\frac{1}{107}$	.0123	$\frac{1}{109}$	.0123
$\frac{1}{112}$	.0122	$\frac{1}{107}$	.0123	$\frac{1}{108}$	.0122	$\frac{1}{110}$	.0123
$\frac{1}{113}$	.0122	$\frac{1}{108}$	.0122	$\frac{1}{109}$	.0122	$\frac{1}{111}$	.0123
$\frac{1}{114}$	.0122	$\frac{1}{109}$	.0122	$\frac{1}{110}$	.0122	$\frac{1}{112}$	.0122
$\frac{1}{115}$	.0122	$\frac{1}{110}$	.0122	$\frac{1}{111}$	.0122	$\frac{1}{113}$	.0122
$\frac{1}{116}$	.0122	$\frac{1}{111}$	.0122	$\frac{1}{112}$	.0122	$\frac{1}{114}$	.0122
$\frac{1}{117}$	.0122	$\frac{1}{112}$	.0122	$\frac{1}{113}$	.0122	$\frac{1}{115}$	.0122
$\frac{1}{118}$	.0122	$\frac{1}{113}$	.0122	$\frac{1}{114}$	.0122	$\frac{1}{116}$	.0122
$\frac{1}{119}$	.0122	$\frac{1}{114}$	.0122	$\frac{1}{115}$	.0122	$\frac{1}{117}$	.0122
$\frac{1}{120}$	.0122	$\frac{1}{115}$	.0122	$\frac{1}{116}$	.0122	$\frac{1}{118}$	.0122
$\frac{1}{121}$	.0121	$\frac{1}{116}$	.0122	$\frac{1}{117}$	.0121		

Calories and Vitamins of Selected Foods

Source: U. S. Dept. of Agriculture, Agriculture Handbook No. 8 (June, 1950).

Food and (amount) ¹	Energy, calories	Vitamin A value, Int. Units	Thiamine, mg.	Riboflavin, mg.	Niacin, mg.	Ascorbic acid, mg.
Apples (1 medium R).....	76	120	.05	.04	.2	6
Bacon: medium fat (2 sl. C).....	97	(0)	.08	.05	.8	0
Bananas (1 medium R).....	88	430	.04	.05	.7	10
Beans: snap, green (1 cup C ²).....	27	830	.09	.12	.6	18
Beef: sirloin ³ (3 oz. C).....	257	(0)	.06	.16	4.1	0
Beets: red, diced (1 cup C).....	68	30	.03	.07	.5	11
Bread: rye (1 sl.).....	57	0	.04	.02	.4	(0)
Bread: white, enriched ⁴ (1 sl.).....	63	0	.06	.04	.5	(0)
Bread: wholewheat (1 sl.).....	55	0	.07	.03	.7	(0)
Butter (1 tbs.).....	100	460 ⁵	...	...	...	(0)
Buttermilk: cultured ⁶ (1 cup).....	86	10	.09	.43	.3	3
Cabbage (1 cup R).....	24	80	.06	.05	.3	50
Carrots: diced (1 cup C).....	44	18,130	.07	.07	.7	6
Cheese: Swiss (1 oz.).....	105	410	trace	(.11)	trace	(0)
Cheese: cottage ⁶ (1 cup).....	215	(50)	.04	.59	(.2)	(0)
Chicken: roasters ⁷ (4 oz. R).....	227	(0)	.09	.18	9.1	(0)
Chocolate: unsweetened (1 oz.).....	143	20	.01	.06	.3	(0)
Corn (1 ear C).....	84	390 ⁸	.11	.10	1.4	8
Crackers: graham (2 medium).....	55	(0)	.04	.02	.2	(0)
Cream: light (½ pt.).....	489	1,980	.07	.34	.2	3
Eggs: poached (1).....	77	540	.04	.12	trace	0
Flour: wheat, enriched ⁹ (1 cup).....	401	(0)	.48	.29	3.8	(0)
Grapefruit (½ medium).....	75	20	.07	.04	.4	76
Ham: smoked ³ (3 oz. C).....	339	(0)	.46	.18	3.5	0
Hamburger (3 oz. C).....	316	(0)	.07	.16	4.1	0
Honey (1 tbs.).....	62	(0)	trace	.01	trace	1
Ice cream (1/7 qt.).....	167	420	.03	.15	.1	1
Lamb: leg roast ³ (3 oz. C).....	230	(0)	.12	.21	4.4	0
Lemons (1 medium).....	20	0	.05	trace	.1	31
Liver: calf (3 oz. R).....	120	19,130	.18	2.65	13.7	30
Macaroni: enriched (1 cup C).....	209	(0)	.24	.15	2.0	(0)
Margarine ¹⁰ (1 tbs.).....	101	460	...	...	...	(0)
Milk: fluid, whole (1 cup).....	166	(390)	.09	.42	.3	3
Molasses: cane, medium (1 tbs.).....	46	...	.02	.02	.2	...
Oatmeal (1 cup C).....	148	(0)	.22	.05	.4	(0)
Oranges (1 medium).....	70	(290)	.12	.04	.4	77
Oysters ¹¹ (1 cup R).....	209	770	.35	.48	2.8	...
Peaches (1 medium R).....	46	880	.02	.05	.9	8
Peanut butter (1 tbs.).....	92	0	.02	.02	2.6	(0)
Peanuts: roasted, chopped (1 tbs.).....	50	0	.03	.01	1.5	(0)
Peas: green, immature (1 cup C).....	111	1,150	.40	.22	3.7	24
Plums (1 R).....	29	200	.04	.02	.3	3
Pork: loin ³ (3 oz. C).....	284	(0)	.71	.20	4.3	0
Potatoes: white (1 cup mashed ¹²).....	159	80	.16	.10	1.7	14
Prunes: unsulfured ¹⁴ (1 cup C).....	310	2,210	.07	.20	2.0	2
Raisins: unsulfured (1 tbs.).....	26	trace	.02	.01	trace	trace
Rice: white (1 cup C).....	201	(0)	.02	.01	.7	(0)
Round steak ⁸ (3 oz. C).....	197	(0)	.06	.19	4.7	0
Salmon: pink, canned (3 oz.).....	122	60	.03	.16	6.8	(0)
Sausage: pork, canned (4 oz.).....	340	(0)	.23	.27	3.4	0
Spaghetti: enriched (1 cup C).....	218	(0)	.25	.15	2.1	(0)
Spinach (1 cup C).....	46	21,200	.14	.36	1.1	54
Sugar: granulated (1 tsp.).....	16	(0)	(0)	(0)	(0)	(0)
Sweetpotatoes (1 baked).....	183	11,410 ¹²	.12	.08	.9	28
Tomatoes (1 medium R).....	30	1,640	.08	.06	.8	35
Turkey: medium fat (4 oz. R).....	304	trace	.10	.16	9.1	(0)
Turnips: diced (1 cup C).....	42	trace	.06	.09	.6	28
Veal cutlet ³ (3 oz. C).....	184	(0)	.07 ¹⁵	.24 ¹⁵	5.2 ¹⁵	0

¹ R—raw; C—cooked. ² Cooked short time in small amount of water. ³ Boneless. ⁴ 4% nonfat milk solids. ⁵ Year-round average. ⁶ Made from skim milk. ⁷ Bone out. Vitamin values based on muscle meat only. ⁸ Based on yellow corn, white corn contains only a trace. ⁹ Patent. ¹⁰ Vitamin A added. ¹¹ Meat only. ¹² If very pale varieties only were used, value would be much lower. ¹³ Milk added. ¹⁴ No sugar added. ¹⁵ Data assume cut to be prepared by braising or pot roasting. Use of proportionate quantity of drippings would add approximately 50% more thiamine and niacin and 25% more riboflavin.

NOTE: Parentheses denote imputed values. The sign ... shows that no basis could be found for imputing a value although there was some reason to believe that a measurable amount might be present.

Chemical Elements

Source: Professor Philip S. Chen, Atanue Union College.

Atomic number	Element	Symbol	Atomic weight	Density gm/cc	Melting point °C.	Boiling point °C.	Valence*	Number of isotopes†	Discoverer	Date discovered
1	Hydrogen	H	1.0080	0.07‡	-259.14	-252.7	1	3	Cavendish	1766
2	Helium	He	4.003	0.15‡	<-272.2	-268.9	0	2	Ramsay	1895
3	Lithium	Li	6.940	0.534	186.	>1200.	1	2	Arfvedson	1817
4	Beryllium*** (Glucinum)	Be	9.013	1.84	1350.	1500.	2	1	Vauquelin	1798
5	Boron	B	10.82	2.535§	2300.	2500.	3	2	Gay-Lussac and Thenard; Davy	1808
6	Carbon	C	12.010	2.25**	>3500.	4200.	2, 3 or 4	2	Prehistoric	....
7	Nitrogen	N	14.008	0.810‡	-209.86	-195.3	3 or 5	2	Rutherford	1772
8	Oxygen	O	16.0000	1.14‡	-218.4	-183.00	2	3	Priestley	1774
9	Fluorine	F	19.00	1.14‡	-223.	-187.	1	1	Moissan	1886
10	Neon	Ne	20.183	0.90035 (g/10°C. 760mm)	-248.67	-245.9	0	3	Ramsay and Travers	1898
11	Sodium	Na	22.997	0.9287‡	97.5	880.	1	1	Davy	1807
12	Magnesium	Mg	24.32	1.741	651.	1110.	2	3	Davy	1808
13	Aluminum	Al	26.98	2.699‡	660.0	1800.	3	1	Wöhler	1827
14	Silicon	Si	28.09	2.42**	1420.	2600.	4	3	Berzelius	1824
15	Phosphorus	P	30.975	1.83 (white)	44.1	280.	3 or 5	1	Brand	1669
16	Sulfur	S	32.066	2.0-1	112.8	444.6	2, 4 or 6	4	Prehistoric	....
17	Chlorine	Cl	35.457	1.507‡	-101.6	-34.6	1, 3, 5 or 7	2	Scheele	1774
18	Argon	A	39.944	1.423‡	-189.2	-185.7	0	3	Rayleigh and Ramsay	1894
19	Potassium	K	39.100	0.87	62.3	760.	1	3	Davy	1807
20	Calcium	Ca	40.08	1.54	810.	1170.	2	6	Davy	1808
21	Scandium	Sc	44.96	3.62 (10°C.)	1200.	2400.	3	1	Nilson	1879
22	Titanium	Ti	47.90	4.5	1800.	>3000.	3 or 4	5	Gregor	1791
23	Vanadium	V	50.95	5.69	1710.	3000.	2, 3, 4 or 5	1	Sefstrom	1830
24	Chromium	Cr	52.01	6.92	1615.	2200.	2, 3 or 6	4	Vauquelin	1798
25	Manganese	Mn	54.93	7.42	1260.	1900.	2, 3, 4, 6 or 7	1	Gahn	1774
26	Iron	Fe	55.85	7.85-88	1535.	3000.	2, 3 or 6	4	Prehistoric	....
27	Cobalt	Co	58.94	8.9	1480.	2900.	2 or 3	1	Brandt	1735
28	Nickel	Ni	58.69	8.60-90	1452.	2900.	2 or 3	5	Cronstedt	1751
29	Copper	Cu	63.54	8.30-95	1083.	2300.	1 or 2	2	Prehistoric	....
30	Zinc	Zn	65.38	7.04-16	419.43	907.	2	5	Marggraf	1746
31	Gallium	Ga	69.72	5.903	29.75	>1600.	2 or 3	2	Boisbaudran	1875
32	Germanium	Ge	72.60	5.46	958.5	2700.	4	5	Winkler	1886
33	Arsenic	As	74.91	5.73	814. (36 atm.)	615.	3 or 5	1	Albertus Magnus	1250§§
34	Selenium	Se	78.96	4.3-8	220.	688.	2, 4 or 6	6	Berzelius	1818
35	Bromine	Br	79.916	3.12‡	-7.2	58.78	1, 3, 5 or 7	2	Balard	1826
36	Krypton	Kr	83.80	2.16‡	-169.	-151.8	0	6	Ramsay and Travers	1898
37	Rubidium	Rb	85.48	1.532	38.5	700.	1	2	Bunsen and Kirchhoff	1861
38	Strontium	Sr	87.63	2.50-58	800.	1150.	2	4	Davy	1808
39	Yttrium	Y	88.92	3.80	1490.	250.	3	1	Gadolín	1794
40	Zirconium	Zr	91.22	6.44	1700.	>2900.	4	5	Klaproth	1789
41	Niobium*** (Columbium)	Nb	92.91	8.4	1950.	>3300.	3 or 5	1	Hatchett	1801
42	Molybdenum	Mo	95.95	9.01	2620±10	3700.	2, 3, 4, 5 or 6	7	Hjelm	1781
43	Technetium	Tc	98.	.....	2300.	.....	2, 3, 4 or 10†† 6	Perrier and Segre	1937	
44	Ruthenium	Ru	101.7	12.06	2450.	>2700.	3, 4, 6 or 8	7	Klaus	1844
45	Rhodium	Rh	102.91	12.44	1955.	>2500.	3	1	Wollaston	1803
46	Palladium	Pd	106.7	12.16 (20°C.)	1555.	2200.	2 or 4	6	Wollaston	1803
47	Silver	Ag	107.880	10.503‡‡	960.5	1950.	1	2	Prehistoric	....
48	Cadmium	Cd	112.41	8.648	320.9	767.	2	8	Stromeyer	1817
49	Indium	In	114.76	7.28	155.	1450.	1 or 3	2	Reich and Richter	1863
50	Tin	Sn	118.70	7.29	231.83	2260.	2 or 4	10	Prehistoric	....
51	Antimony	Sb	121.76	6.618	630.5	1380.	3 or 5	2	Prehistoric	....
52	Tellurium	Te	127.61	6.25**	452.	1390.	2, 4, or 6	8	von Richenstein	1782
53	Iodine	I	126.91	4.94	113.5	184.35	1, 3, 5 or 7	1	Courtois	1811

Atomic number	Element	Symbol	Atomic weight	Density gm/cc	Melting point °C.	Boiling point °C.	Valence*	Number of isotopes†	Discoverer	Date discovered
54	Xenon	Xe	131.3	3.52†	-140.	-109.1	0	9	Ramsay and Travers	1893
55	Cesium	Cs	132.91	1.873	26.	670.	1	1	Bunsen and Kirchhoff	1860
56	Barium	Ba	137.36	3.78	850.	1140.	2	7	Davy	1808
57	Lanthanum	La	138.92	6.5	826.	1800.	3	2	Mosander	1839
58	Cerium	Ce	140.13	6.9	770.	1400.	3 or 4	4	Klaproth; Berzelius and Hisinger	1803
59	Praseodymium	Pr	140.92	6.475	940.	.....	3, 4 or 5	1	Auer von Welsbach	1885
60	Neodymium	Nd	144.27	6.96	840.	.....	3	7	Auer von Welsbach	1885
61	Promethium	Pm	147.	.....	.....	.....	3	5††	Marinsky and Glendenin	1945
62	Samarium	Sm	150.43	7.7-8	1350.	.....	2 or 3	7	Boisbaudran	1879
63	Europium	Eu	152.0	.....	1100.	.....	2 or 3	2	Demarcay	1901
64	Gadolinium	Gd	156.9	.....	.....	.....	3	7	Marignac	1880
65	Terbium	Tb	159.2	.....	.....	.....	3 or 4	1	Mosander	1843
66	Dysprosium	Dy	162.46	.....	.....	.....	3	7	Boisbaudran	1886
67	Holmium	Ho	164.94	.....	.....	.....	3	1	Soret	1878
68	Erbium	Er	167.2	7.77 (†)	1250(†)	.....	3	6	Mosander	1843
69	Thulium	Tm	169.4	.....	.....	.....	3	1	Cleve	1879
70	Ytterbium	Yb	173.04	.....	1800.	.....	3	7	Marignac	1878
71	Lutetium	Lu	174.99	.....	.....	.....	3 or 4	2	Urbain	1907
72	Hafnium	Hf	178.6	13.3	1700.	3200.	4	6	Coster and von Hevesy	1923
73	Tantalum	Ta	180.88	16.6	2850.	4100.	3 or 5	1	Ekeberg	1802
74	Wolfram*** (Tungsten)	W	183.92	18.6-19.1	3370.	5900.	2, 4, 5 or 6	5	d'Elhuyar	1783
75	Rhenium	Re	186.31	20.53 (20°C.)	3000.	.....	4	2	Noddack and Berg	1925
76	Osmium	Os	190.2	22.5	2700.	5300.	2, 3, 4 or 8	7	Tennant	1804
77	Iridium	Ir	193.1	22.42	2350.	4800.	3 or 4	2	Tennant	1804
78	Platinum	Pt	195.23	21.37	1755.	4300.	2 or 4	5	De Ulloa	1748
79	Gold	Au	197.2	19.3††	1063.0	2600.	1 or 3	1	Prehistoric	.....
80	Mercury	Hg	200.61	13.596†	-38.87	356.90	1 or 2	7	Prehistoric	.....
81	Thallium	Tl	104.39	11.86	303.5	1650.	1 or 3	2	Crookes	1861
82	Lead	Pb	207.21	11.347††	327.5	1620.	2 or 4	4	Prehistoric	.....
83	Bismuth	Bi	209.00	9.80	271.	1450.	3 or 5	4	Geoffroy	1753
84	Polonium	Po	210.0	.....	.....	.....	.....	7	Curie	1898
85	Astatine	At	211.	.....	470.	.....	1, 3, 5 or 7	2	Corson et al	1940
86	Radon	Rn	222.	9.739†	-71.	-61.8	0	3	Dorn	1900
87	Francium	Fr	223.	.....	23.	.....	1	1	Perey	1939
88	Radium	Ra	226.05	(5)	960.	1140.	2	4	Curie	1898
89	Actinium	Ac	227	.....	.....	.....	..	2	Debiérne	1899
90	Thorium	Th	232.12	11.13	1845.	3000.	4	6	Berzelius	1828
91	Protactinium	Pa	231.	.....	.....	.....	..	2	Hahn and Meitner	1917
92	Uranium	U	238.07	18.7	1850.	.....	3, 4 or 6	3	Klaproth	1789
93	Neptunium	Np	239.	.....	.....	.....	3, 4, 5 or 6	10††	McMillan and Abelson	1940
94	Plutonium	Pu	238.	.....	.....	.....	3, 4, 5 or 6	11††	Seaborg et al	1940
95	Americium	Am	241.	.....	.....	.....	3	8††	Seaborg et al	1944
96	Curium	Cm	242.	.....	.....	.....	3	6††	Seaborg et al	1944
97	Berkelium	Bk	243	.....	.....	.....	3 or 4	2††	Seaborg et al	1950
98	Californium	Cf	244	.....	.....	.....	3	2††	Seaborg et al	1950

* VALENCE is a measure of the extent to which an atom is able to combine directly with others.

† Isotopes are different forms of the same element, having the same atomic number but different atomic weights. The number of isotopes given includes only those that are stable and natural occurring, excluding those marked ††.

‡ Liquid. § Amorphous. ¶ Graphite. ** Crystalline. †† Compressed. ‡‡ Cast. §§ Exact date doubtful—born 1193 and died 1280. ¶¶ Have been artificially produced. *** New name adopted by International Union of Chemistry, replacing old name in parentheses. < Is less than. > Is greater than.

Figures in parentheses are tentative or theoretical.

Note that the number of isotopes of each element is increasing by discovery or by manufacture.

Scientific Inventions, Discoveries and Theories

Source: *Encyclopædia Britannica*.

Inventions

Adding machine, recording: William S. Burroughs, 1888.

Airplane: Wilbur and Orville Wright, 1903.

Air brake, railroad: George Westinghouse, 1868.

Air pump: Otto von Guericke, 1650.

Automobile: (Product of inventions of many men. Gottlieb Daimler, who c.1887 produced a vehicle powered by a high-speed internal-combustion engine, is frequently given credit.)

Bakelite: Leo H. Baekeland, 1908.

Balloon, hot-air: Joseph and Jacques Montgolfier, 1783.

Barometer: Evangelista Torricelli, 1643.

Camera, Kodak: George Eastman, 1888.

Carburetor, spray: Charles E. Duryea, 1892.

Cellophane: J. E. Brandenberger, 1912.

Celluloid: John W. Hyatt, 1870.

Clock, pendulum: Christian Huygens, 1656.

Converter, Bessemer: William Kelly, 1851. (Patent bought by Sir Henry Bessemer, who made similar invention in 1856.)

Cotton gin: Eli Whitney, 1793.

Cyanide: Nikodem Caro and Adolf Frank, 1905.

Cyclotron: Ernest O. Lawrence, 1931.

Daguerreotype process: Louis J. M. Daguerre, 1839.

Diesel engine: Rudolf Diesel, 1897.

Dynamite: Alfred B. Nobel, 1862.

Dynamo: Michael Faraday, 1831.

Dynamo, industrial: Zénohe Gramme, 1872.

Electromagnet: William Sturgeon, 1823.

Electroplating process: Luigi Brugnatelli, 1805.

Elevator, passenger: Elisha G. Otis, 1857.

Elevator safety device: Elisha G. Otis, 1852.

Engine, high-speed internal-combustion: Gottlieb Daimler, 1885.

Filament, tungsten: Irving Langmuir, 1915.

Flying shuttle: John Kay, 1733.

Food preservation, hermetically sealed: François Appert, 1804.

Fountain pen: Lewis E. Waterman, 1884. (First successful one.)

Frequency modulation (FM): Edwin H. Armstrong, 1933.

Guncotton: Christian Schönbein, 1845.

Gyrocompass: Elmer A. Sperry, 1905.

Gyroscope: Léon Foucault, 1852.

Helicopter: Louis C. Bréguet, 1909.

Hydroplane: Glenn H. Curtiss, 1911.

Lamp, electric incandescent: (Inventor uncertain; Thomas A. Edison, who made a lamp in 1879, sometimes credited.)

Lens, bifocal: Benjamin Franklin, c.1760.

Lightning rod: Benjamin Franklin, 1752.

Linotype machine: Ottmar Mergenthaler, 1844.

Lithography: Aloys Senefelder, 1796.

Machine gun: Richard J. Gatling, 1861.

Match, friction: John Walker, 1827.

Mercury-vapor lamp: Peter C. Hewitt, 1912.

Microscope, compound: Zacharias Janssen, 1590.

Microscope, electron: Vladimir Zworykin et al., 1939.

Miner's safety lamp: Sir Humphry Davy, 1815.

Monotype machine: Tolbert Lanston, 1887.

Motion pictures: Thomas A. Edison, 1893.

Motion pictures, sound: (Product of various inventions. First picture with synchronized musical score: *Don Juan*, Warner Bros., 1926. First picture with spoken dialogue: *The Jazz Singer*, Warner Bros., 1927.)

Motor, A-C: Nikola Tesla, 1892.

Ophthalmoscope: Hermann von Helmholtz, 1851.

Phonograph: Thomas A. Edison, 1877.

Photography, color: Gabriel Lippmann, 1891.

Power loom: Edmund Cartwright, 1785.

Printing, movable-type: Johann Gutenberg (?), c.1440.

Printing press, rotary: Richard Hoe, 1847.

Radio telephone: Lee De Forest, 1906.

Radio tube, diode: Sir John Ambrose Fleming, 1904.

Radio tube, triode: Lee De Forest, 1906.

Rayon: Sir Joseph Swan, 1883.

Reaper: Cyrus McCormick, 1834.

Revolver: Samuel Colt, 1835.

Rifle, automatic: John M. Browning, 1918.

Rubber, vulcanized: Ch. Goodyear, 1839.

Screw propeller: John Ericsson, 1837.

Self-starter, automobile: Charles F. Kettering, 1911.

Sewing machine: Elias Howe, 1846.

Spinning frame: Sir Richard Arkwright, 1769.

Spinning jenny: James Hargreaves, 1764.

Spinning mule: Samuel Crompton, 1779.

Steamboat: Robert Fulton, 1807. (First commercially successful one in U. S.)

Steam engine: James Watt, 1765. (First practical one.)

Tank, military: Sir Ernest Swinton, 1914.

- Telegraph, electromagnetic recording:** Samuel F. B. Morse, 1837.
- Telephone:** Alexander Graham Bell, 1876.
- Telescope:** Hans Lippershey (?), c.1608.
- Television:** Vladimir Zworykin, 1931.
- Thermometer:** Galileo Galilei, 1593.
- Tire, pneumatic:** John B. Dunlop, 1888.
- Tractor, caterpillar:** Benjamin Holt, 1900.
- Transformer, electric:** William Stanley, 1885.
- Typewriter:** Christopher Sholes, 1868. (First practical one.)
- Wireless:** Guglielmo Marconi, 1895. (First practical system.)
- Zeppelin:** Count Ferdinand von Zeppelin, 1900.
- Discoveries and Theories**
- Adrenaline, isolation of:** Jokichi Takamine, 1901.
- Aluminum manufacture by electrolytic action:** Charles M. Hall, 1886.
- Antitoxin, diphtheria:** Emil von Behring, 1890.
- Atom smashing with slow neutrons:** Enrico Fermi, 1934. (Experiment repeated by Lise Meitner and Otto Hahn in 1938.)
- Atomic numbers:** Henry Moseley, 1913.
- Atomic theory:** John Dalton, 1803.
- Aureomycin:** Benjamin M. Duggar, 1948.
- Bacteria:** Anton van Leeuwenhoek, 1675.
- Blood, circulation of:** William Harvey, 1628.
- Classification of plants and animals:** Carolus Linnaeus, 1737-53.
- Combustion, nature of:** Antoine Lavoisier, 1777.
- Conditioned reflex:** Ivan Pavlov, c.1910.
- Deuterium (heavy hydrogen):** Harold C. Urey, 1932.
- Displacement of water, principle of:** Archimedes, 3rd century B.C.
- Electromagnetic waves:** Heinrich Hertz, 1886.
- Electron:** Sir Joseph J. Thomson, 1897.
- Electron, wave nature of:** Louis Victor de Broglie, 1924.
- Ether, first used as anesthetic:** Crawford W. Long, 1842.
- Evolution by natural selection:** Charles Darwin, 1859.
- Falling bodies, law of:** Galileo Galilei, 1590.
- Gases, laws governing:** Joseph Gay-Lussac, 1809.
- Gravitation, law of:** Sir Isaac Newton, 1687.
- Helium on sun:** Sir Joseph Lockyer, 1868.
- Heredity, laws of:** Gregor Mendel, 1865.
- Induction, electric:** Joseph Henry, 1828.
- Insulin:** Sir Frederick G. Banting and J. J. R. MacLeod, 1922.
- Intelligence testing, modern:** Alfred Binet and Theodore Simon, 1905.
- Isotopes, mass spectra of:** Francis W. Aston, 1919.
- Isotopes, theory of:** Frederick Soddy, 1912.
- Light, electromagnetic theory of:** James Clerk Maxwell, 1873.
- Light, velocity of:** Olaus Römer, 1675.
- Molecular hypothesis:** Amadeo Avogadro, 1811.
- Neutron:** James Chadwick, 1932.
- Ohm's Law:** Georg S. Ohm, 1827.
- Ozone:** Christian Schönbein, 1839.
- Penicillin:** Sir Alexander Fleming, 1929.
- Periodic table:** Dmitri Mendeleev, 1869.
- Positron:** Carl D. Anderson, 1932.
- Proton:** Ernest Rutherford, 1919.
- Psychoanalysis:** Sigmund Freud, c.1904.
- Quantum mechanics:** Werner Heisenberg, 1925.
- Quantum theory:** Max von Planck, 1901.
- Rabies preventive:** Louis Pasteur, 1885.
- Radioactivity:** Antoine Becquerel, 1896.
- Radioactivity, artificial:** Frédéric and Irène Joliot-Curie, 1934.
- Relativity, theories of:** Albert Einstein, 1905-50.
- Schick test of susceptibility to diphtheria:** Béla Schick, 1913.
- Secretin, isolation of:** Sir William Bayliss and Ernest Starling, 1902.
- Soda manufacture from salt:** Ernest Solvay, 1861.
- Solar system, heliocentricity of:** Nicolaus Copernicus, 1530. (Also Aristarchus of Samos, 3rd century B.C.)
- Spectrum analysis:** Robert Bunsen and Gustav Kirchhoff, 1859.
- Sulfa drugs as bactericides:** Gerhard Domagk, 1932.
- Surgery, antiseptic:** Sir Joseph Lister, 1867.
- Tuberculosis bacillus:** Robert Koch, 1882.
- Vaccination:** Edward Jenner, 1796.
- Virus, crystalized:** Wendell M. Stanley, 1935.
- Vitamin A:** Elmer V. McCollum, 1912-14.
- Vitamin B:** Elmer V. McCollum, 1915-16.
- Vitamin C:** A. Holst, 1912.
- Vitamin D:** Elmer V. McCollum, 1922.
- Vitamin D, irradiated:** Harry Steenbock, 1924.
- Wassermann test for syphilis:** August von Wassermann, 1906.
- Water, synthesis of:** Henry Cavendish, 1781.
- Wilson Cloud Chamber:** Charles T. R. Wilson, 1911.
- X-rays:** Wilhelm Roentgen, 1895.

The Races of Mankind

by PROFESSOR WILTON MARION KROGMAN

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Classification of Man into groups called "races" rests upon the basic fact that all peoples belong to the same genus and species, *Homo sapiens*. This is important to keep in mind, for it implies that all peoples are much more alike than different.

Scientists classify Man by using a number of physical traits, most of them based upon observation rather than upon precise measurement. Examples of these are stature and head-form (determined by a breadth/length ratio), skin color, hair color, form and texture, eye color, nose shape, mouth form, shape of face with special reference to cheekbones. Other criteria, such as arm and leg proportions, are more specialized. Two things are noteworthy here: (1) most of the physical traits are external; (2) physical traits are so variable that a single trait has virtually no diagnostic value.

We may define a *race*, simply, as a subgroup of Mankind more or less set apart by a combination of physical traits.

There are three, possibly four, great aggregates of races, usually called *stocks*: Caucasoid, Mongoloid, Negroid, and Archaic Caucasoid (or Australoid). The first three are often referred to as "White," "Yellow," and "Black." This is not really correct; peoples of North-Central India are Caucasoids, yet their skin color is brown to dark brown; certain tribes of Northeast Africa are Negroids, yet their skin color is light brown to brown. Variability also may be seen in stature: the tallest people in the world are found in Denmark and the Scottish Highlands, in East Africa, and in southernmost South America—respectively Caucasoid, Negroid, and Mongoloid. It must be re-emphasized that not one or two traits, but an aggregate of traits, of genetic origin, provides the only valid method of setting up stock or racial classification.

Caucasoids are the peoples of Europe, the adjacent shores of North Africa, and of Asia Minor and the northern half of India. The following races belong to the Caucasoid stock: Nordic, or Northwest European, Alpine or Central European, Mediterranean or Southwest European, Baltic or Northeast European, Dinaric or Southeast European, Armenoid in western Asia Minor, and Indo (often called Hindu) in North-Central India. These races are not, of course, absolutely limited to those geographical areas. For example, the Mediterranean race is found also in North Africa, especially Egypt, and in Asia Minor, where it is represented by the Bedouin Arabs of Arabia. Other Caucasoid peoples are the Magyars, the Finns, and the Lapps, who show traces of Mongoloid mixtures, especially the last.

The Negroids are the peoples of Africa and Oceania, termed respectively the African Negroids and the Oceanic Negroids. The following African Negroid races are commonly recognized: Forest or West African or "True" Negro in West Africa. Sudanic in Central Africa, Nilotic in East Africa, Hamitic in Northeast and North Africa, Bantu (better: Bantu-speaking) in South Africa, and Bushman-Hottentot in the Kalahari Desert of South Africa. The Oceanic Negroids are commonly called Melanesian or Papuan, and are found chiefly in Borneo, New Caledonia, the Solomons, the Hebrides and Fiji.

Of special interest among Negroids are Pygmies, who average about four feet in stature. They are found in Africa in the Congo region, in the Ituri Forest, and in Oceania on the Andaman Islands, the Malay Peninsula, the Philippines, and Borneo.

The Mongoloids are basically the peoples of Asia, but are also in the Western Hemisphere as the American Indians, and are represented in Malaysia and in Oceania. The Mongoloids are usually divided into the following races: Sinic of China and Japan, Palearctic of Siberia, Turkic and Tungic or Mongolic of Central Asia, and Malayan of Malaysia. In the Western Hemisphere they are found as Eskimos and the Indians of the Americas. In Polynesia, i.e., in Samoa, Tonga, Hawaii and west to Easter Island, the Mongoloid stock is a basic element, with some Caucasoid and some Negroid (Melanesian?) admixture.

The Archaic Caucasoids are found in Australia as the Australian aborigines and in Japan as the Ainu. They may possibly be an element in Melanesia and in Ceylon and South India, e.g., the Toda, the Vedda, and other tribes.

This is a brief survey of the "stocks" and "races" of the world. There is much intermixing and some overlapping. This leads to two very important biological observations: (1) *there are no pure races*; (2) *there are no superior, or inferior races*. We know from history that all peoples, upon contact, have crossed their genetically based physical traits. We know from human anatomy that in fundamental structure all peoples are identical.

As far as biological Man is concerned, what he is, is related to his cultural environment, rather than to any innate (or inherited) ability or aptitude. There is no "German race," only a German nationality; there is no "Jewish race," only a Jewish socio-religious community; there is no "Aryan race," only an Aryan language; there is no "master race," only a political bombast!

RELIGION



Principal Religions of the World

Source: *Encyclopaedia Britannica*.

Statistics of the world's religions are only very rough approximations. Aside from Christianity, few religions, if any, attempt to keep statistical records; and even Protestants and Catholics employ different methods of counting members. All persons of whatever age who have received baptism in the Catholic Church are counted as members, while in most Protestant Churches only those who "join" the church are numbered. The compiling of statistics is further complicated by the fact that in China one may be at the same time a Confucian, a Taoist and a Buddhist. In Japan, one may be both a Buddhist and a Shintoist.

Religion	North America	South America	Europe	Asia ¹	Africa	Oceania ²	Total
Christian—Total.....	128,467,527	91,677,138	441,383,109	25,374,305	28,911,430	26,171,973	741,985,482
Roman Catholic.....	74,561,995	89,412,040	215,363,295	8,857,842	14,194,448	18,951,281	421,340,901
Eastern Orthodox.....	1,208,157	.....	112,447,669	8,106,071	5,868,089	.....	127,629,986
Protestant.....	52,697,375	2,265,098	113,572,145	8,410,392	8,848,893	7,220,692	193,014,595
Jewish ³	5,185,000	597,850	3,505,800 ⁴	1,247,200	723,500	44,000	11,303,350
Mohammedan.....	32,600	139,156	3,866,000	251,227,347	60,359,000	75,000	315,699,103
Zoroastrian.....	.....	.....	.....	124,890	.....	.....	124,890
Shinto.....	.....	.....	.....	25,000,000	.....	.....	25,000,000
Taoist.....	15,000	17,000	12,000	50,000,000	1,200	8,000	50,053,200
Confucian.....	85,000	95,000	50,000	300,000,000	7,500	52,000	300,289,500
Buddhist.....	165,000	135,000	.....	150,000,000	.....	.....	150,300,000
Hindu.....	10,000	275,000	.....	255,030,506	300,000	100,000	255,715,506
Primitive.....	50,000	1,000,000	.....	45,000,000	75,000,000	100,000	121,150,000
Others or none.....	76,540,873	9,803,856	82,491,091	160,559,752	12,639,370	5,363,027	347,397,969
Grand Total.....	210,551,000	103,740,000	531,303,000	1,263,564,000	177,942,000	31,914,000	2,319,019,000

¹ Includes Indonesia, but not Philippines. ² Includes Philippines. ³ Includes all Jews, whether or not members of a synagogue. ⁴ Includes Asiatic U.S.S.R. and Turkey.

History of Leading Religious Groups in the United States

(50,000 members or over)

Source: *Yearbook of American Churches*.

Baptist

American Baptist Association.—A group of Independent Missionary Baptist Churches, mainly in the South, Southwest and Southeast, organized into an association in 1905. In 1950, some 303 churches with a combined membership of some 60,000 left the American Baptist Association and formed the North American Baptist Association. Members (1951): 286,691.

American Baptist Convention.—The early historical local independency of Baptist churches in America tended to impede the formation of any general organization until in 1814 a General Missionary Convention was formed to permit Baptists to express themselves in terms of missionary activities. In 1845, the state conventions in the South withdrew to organize the Southern Baptist Convention. In 1907, the Northern Baptist Convention was organized, a delegated body under whose direction the many agencies of the Baptists in the North and West now operate. In May, 1950, the name was changed to the American Baptist Convention. Members (1951): 1,654,304.

Free Will Baptists.—A body of Arminian Baptists, organized in 1787 by Benjamin

Randall in New Hampshire. Members (1951): 400,000.

General Baptists.—An Arminian group of Baptists, organized in 1607 and transplanted to the Colonies in 1714. It died down in the East but was revived in the Midwest in 1823 under Rev. Benoni Stinson. Members (1951): 50,487.

National Baptist Convention, U. S. A., Inc.—The older and parent convention of Negro Baptists. This body is to be distinguished from the National Baptist Convention of America, usually referred to as the "unincorporated" body. The "incorporated" convention is a constituent member of the National Council of the Churches of Christ in the U. S. A. Members (1951): 4,467,779.

National Baptist Convention of America.—This is a body usually referred to as the "unincorporated" convention, not to be confused with the "Incorporated" National Baptist Convention, U. S. A., Inc., from which this body withdrew. Organized in 1895. Members (1950): 2,645,789.

National Baptist Evangelical Life and Soul Saving Assembly of U. S. A.—Organized in 1921 by A. A. Banks, Sr., as a chari-

table, educational, and evangelical organization. Members (1951): 57,674.

National Primitive Baptist Convention of the U. S. A.—A group of Negro Baptists opposed to all forms of church organization. Members (1950): 79,000.

Primitive Baptists.—A large group of Baptists, largely through the South, who are opposed to all centralization, to modern missionary societies, and to Sunday schools. They are sometimes called "anti-missionary" Baptists. Members (1950): 72,000.

Southern Baptist Convention.—In 1845, Southern Baptists withdrew from the General Missionary Convention over the question of slavery and other matters and formed the Southern Baptist Convention. Members (1951): 7,373,498.

The United American Free Will Baptist Church.—A body which set up its organization in 1901. Though ecclesiastically distinct, they are in close relations with the Free Will Baptists. Members (1951): 78,350.

Catholic and Orthodox

Armenian Apostolic Orthodox Church of America.—The American branch of the Ancient Church of Armenia. Established in the U. S. in 1839. Diocesan organization under the jurisdiction of the Holy See of Etchmiadzin, Armenia, U.S.S.R. Members (1951): 130,000.

Greek Orthodox Church (Hellenic).—Greek-speaking Orthodox Christians have had scattered parishes in the U. S. for the last seventy years. These were first under the jurisdiction of the Metropolitan of Athens and later under the Patriarchate of Constantinople. Political changes in Europe have been reflected in this country and have brought difficulties in all branches of the Orthodox Church. In 1931, a general convention held in New York City under the presidency of Archbishop Athenagoras brought a large measure of unity and order. Members (1952): 1,000,000.

Polish National Catholic Church.—After a long period of dissatisfaction with Roman Catholic Administration in many Polish parishes, this group was organized in 1904. Members (1951): 265,879.

The Roman Catholic Church.—The largest single group of Christians in the U. S., the Roman Catholic Church is under the spiritual leadership of Pope Pius XII. This group dates back to the priests who accompanied Columbus on his second voyage to the New World. A settlement, later discontinued, was made at St. Augustine, Fla. The continuous history of this Church in the colonies began at St. Mary's in 1834, in Maryland. Members (1951): 29,241,580.

Rumanian Orthodox Church.—This body of Eastern Orthodox Christians of Rumanian descent is under the spiritual supervision and canonical jurisdiction of

the Bishop of the Rumanian Orthodox Church of North and South America. Members (1952): 50,000.

U. S. Church Membership, 1951

Source: Yearbook of American Churches.

Religious group	Members
Buddhist.....	73,000
Old Catholic and Polish National Catholic....	337,408
Eastern Orthodox.....	1,858,585
Judaism.....	5,000,000
Roman Catholic.....	29,241,580
Protestant.....	52,162,432
Total.....	88,673,005

NOTE: Compiled from figures furnished by 244 of the 252 religious bodies in the U. S.

The Russian Orthodox Church Outside Russia.—Organized in 1920 to unite the missions and parishes of the Russian Orthodox Church outside of Russia. Members (1951): 55,000.

The Russian Orthodox Greek Catholic Church of North America.—The Russian Orthodox Catholic Church entered Alaska in 1792. In 1872, its headquarters were moved from Sitka to San Francisco and, in 1905, to New York. It administers churches in the U. S., Canada, Alaska, Aleutian Is., South America and Japan. Members (1950): 400,000.

Serbian Eastern Orthodox Church.—This body of the Eastern Orthodox Church has its own diocese and is under jurisdiction of the Serbian Patriarchate (Yugoslavia). Members (1947): 75,000.

Lutheran

American Lutheran Church.—This Church is a constituent body of the American Lutheran Conference. It is itself the result of the merger in 1930 of the Evangelical Lutheran Joint Synod of Ohio and Other States (org. 1918), the Evangelical Lutheran Synod of Iowa and Other States (org. 1854), and the Lutheran Synod of Buffalo (org. 1845). Members (1950): 715,640.

Augustana Evangelical Lutheran Church.—This group, whose constituency originally was of Swedish extraction, is a member of the American Lutheran Conference and is also a participating body in the National Lutheran Council. Organized in 1860. Members (1951): 465,062.

Evangelical Lutheran Church.—In 1917 the United Norwegian Church, the Norwegian Synod and the Hauge Synod united under the name, Norwegian Lutheran Church of America. In 1930 this group became a constituent part of the American Lutheran Conference. The new name, The Evangelical Lutheran Church, was adopted at its General Convention in 1946. Members (1950): 825,466.

The Evangelical Lutheran Joint Synod of Wisconsin and Other States.—This group, a constituent part of the Synodical Conference, was organized in Wisconsin in 1850. Members (1951): 311,477.

Lutheran Church-Missouri Synod.—This group, the largest constituent part of the Synodical Conference, was organized in 1847, holds to an unwavering confessionalism and is the leader in the conservative group among the Lutherans. Members (1950): 1,674,901.

Lutheran Free Church.—This body was organized in 1897 as the result of differences of opinion in the United Norwegian Church over control of the Augsburg Seminary. It became a constituent part of the American Lutheran Conference in 1930. Members (1949): 59,860.

United Lutheran Church in America.—This group dates back to the Ministerium of Pennsylvania, organized in 1748, and beyond that to early colonial days. It represents the union of the General Synod, General Council, and United Synod of the South in 1918. Members (1951): 1,925,506.

Methodist

African Methodist Episcopal Church.—This group was formed in Philadelphia in 1816 and extended throughout the South after the Civil War. Members (1951): 1,166,301.

African Methodist Episcopal Zion Church.—This group was organized in 1796, coming out of the John Street Methodist Church, New York. Members (1951): 728,150.

Colored Methodist Episcopal Church.—In 1870, the General Conference of the M.E. Church, South, approved the request of its colored membership for the formation of their conferences into a separate body. Members (1951): 392,167.

The Methodist Church.—In April, 1939, the Uniting Conference forming The Methodist Church was held by representatives of the Methodist Episcopal Church, the Methodist Episcopal Church, South, and the Methodist Protestant Church. The Methodist Church in the United States originated with the efforts of John and Charles Wesley, leaders of the revival movement in England in the eighteenth century. Methodist emigrants from Ireland planted Methodism in America about 1760. In 1771 Francis Asbury, one of Wesley's preachers, later a Bishop, landed in Philadelphia. The Methodist Episcopal Church was organized in 1784-85. The Methodist Episcopal Church, South, dated from 1846, the separation from the Methodist Episcopal Church having taken place over the slavery issue. The Methodist Protestant Church dated from 1830, and was organized over the issue of lay representation. Members (1951): 9,065,727.

Presbyterian

Cumberland Presbyterian Church.—In 1806, a presbytery (Cumberland) of the Presbyterian Church was dissolved by the Synod of Kentucky on account of its attitude toward revivalism. Members of the presbytery organized as an independent body in 1810 and became the Cumberland Presbyterian Church. When this body attempted to reunite with the Presbyterian Church in 1906, a minority preferred to continue as an independent church as above. Members (1952): 81,086.

Presbyterian Church in the U. S.—This group is the branch of the Presbyterian Church which separated from the main body at the time of the Civil War. It is often called the "Southern" Presbyterian Church. Members (1951): 702,266.

Presbyterian Church in the United States of America.—This group, distinguished by its representative form of government and its Calvinistic theology, appeared among the earliest colonists of America. Its first church was established about 1640, its first presbytery in 1706. Members (1950): 2,364,112.

United Presbyterian Church of North America.—This group dates back to the Reformed Presbyterian (Covenant) Church (1643) and the Associate Presbyterian (Seceder) Church (1733), both of Scotland. These two groups appeared in America in 1774 and 1753 respectively. They united and became the Associate Reformed Presbyterian Church in 1782. A minority, however, continued as the Associate Presbyterian Church. In 1858 the two groups united and became the United Presbyterian Church. Members (1951): 219,927.

Others

Apostolic Overcoming Holy Church of God.—A Negro body incorporated in Alabama in 1919. It is evangelistic in purpose and emphasizes sanctification, holiness and divine healing. Members: 75,000.

Assemblies of God.—Independent, pentecostal, evangelical, missionary churches associated for co-operative effort in district and general councils. Organized in Arkansas in 1914. Members (1951): 318,478.

Buddhist Churches of America.—Organized in 1914 as the Buddhist Mission of North America, this group was incorporated in 1942 under the present name and represents Buddhism in this country, the faith based on "the anatman doctrine, supplemented by the idea of karma, and nirvana, the holy ease or a blissful mental state of absolute freedom from evil." Members (1950): 73,000.

Christ Unity Science Church, Inc.—Established in 1810, emphasizing Christian ontology and divine healing. Members: 682,172.

The Christian and Missionary Alliance.—An evangelical, evangelistic and missionary movement organized in 1887. It stresses "the deeper Christian life and consecration to the Lord's service." Members (1950): 52,935.

Christian Reformed Church.—A group of Dutch Calvinists which dissented from the Reformed Church in America in 1857 and which was strengthened by later accessions from the same source and by immigration. Members (1951): 155,310.

Church of Christ, Scientist.—Founded by Mary Baker Eddy in 1879. As defined by Mrs. Eddy, Christian Science is the scientific system of divine healing and the reinstatement of primitive Christianity. Churches and societies (1952): 3,006.*

Church of God.—This body, to be differentiated from the Church of God with headquarters at Anderson, Ind., is a holiness group and pentecostal. It began in 1886 in Tennessee, under the name of Christian Union, reorganized in 1902 as the Holiness Church. In 1907 it adopted the name above. Members (1951): 121,706.

The Church of God.—Inaugurated by Bishop A. J. Tomlinson, who served as General Overseer 1903-43. Episcopal in administration and Evangelical in doctrines of Justification by faith. Members (1951): 54,560.

Church of God (Anderson, Ind.).—This group is one of the largest of the groups which have taken the name "Church of God." Its headquarters are at Anderson, Ind. It originated about 1880. Members (1951): 100,814.

Church of God in Christ.—Organized in Arkansas in 1895, by C. P. Jones and C. H. Mason, who believed there was no salvation without holiness; incorporated 1897. Members (1951): 323,305.

Church of the Brethren (Conservative Dunkers).—German pietists from Crefeld, Germany, under the leadership of Peter Becker, entered the colonies in 1719, and settled at Germantown, Philadelphia, Pa. They were called Dunkers (baptizers) and were immersionists. The members are conservative as to attire, oaths or affirmations, resistance to force, temperance, and the like. Members (1951): 186,358.

Church of the Nazarene.—One of the larger holiness bodies, organized in Pilot Point, Tex., Oct. 1908. It is in general accord with the early doctrines of Methodism and emphasizes entire sanctification. Members (1951): 235,670.

Churches of Christ.—This body is made up of a large group of churches, formerly reported with the Disciples of Christ, but since the religious census of 1906, reported separately. They are strictly congregational

and have no organization larger than the local congregation. Members (1951): 1,000,000.

Congregational Christian Churches.—Congregational churches date back to the Pilgrim Fathers and the early colonists of New England in 1620. The Christian churches date back to the Wesleyan and revival movements at the end of the eighteenth century. These two groups of churches were merged at Seattle, Wash., in 1931. Members (1951): 1,241,477.

Disciples of Christ.—In the revival period of the early nineteenth century, a movement under Thomas Campbell and his son, Alexander, resulted in the establishment of a fellowship called Christians or Disciples. They believe that sects are unscriptural. Members (1951): 1,792,985.

Evangelical and Reformed Church.—This body was formed on June 26, 1934, at Cleveland, Ohio, by a union of the Evangelical Synod of North America and the Reformed Church in the United States. The union was unique in that it left all details to be adjusted afterwards. The constitution was declared in effect at the General Synod which met at Lancaster, Pa., in June, 1940. The merged boards were organized and on February 1, 1941, took over the work of the two former denominations. Members (1951): 735,941.

Evangelical Mission Covenant Church of America.—A transplantation to the U. S., in 1885, of a free-church movement in the Swedish state church. Until recently the name has been the Swedish Evangelical Mission Covenant. Members (1951): 51,850.

The Evangelical United Brethren Church.—This group had its origin in Johnstown, Pa., November 16, 1946, in the consummation of organic union between the Evangelical Church and the Church of the United Brethren in Christ. Both these former communions had their beginning in Pennsylvania in the evangelistic movement of the early 19th century. Jacob Albright was the founder of the Evangelical Church, and Dr. Philip William Otterbein was the founder of the United Brethren Church in 1800. In doctrine this Church is Arminian and in government Methodist. Members (1951): 720,544.

Federated Churches.—Actually not a denomination but a group of local churches in various parts of the country, federated under the above name. Members (1936): 88,411.

Religious Society of Friends (Five Years Meeting).—The Five Years Meeting of Friends was formed in 1902 by 13 Yearly Meetings entering into a loose confederation. Since then, two of the original Yearly Meetings have withdrawn (Kansas and Oregon) and three Yearly Meetings outside the U. S. have joined. Members (1951): 68,612.

*Membership figure not available. The manual of the church forbids "the numbering of people and the reporting of such statistics for publication."

Independent Fundamental Churches of America.—Organized in 1930, at Cicero, Ill., by representatives of various independent churches. Members (1946): 65,000.

International Church of the Four Square Gospel.—An evangelistic missionary body organized by Aimee Semple McPherson in 1927. The parent church is Angelus Temple in Los Angeles, organized in 1923, with many branch churches in the U. S. and mission stations in foreign countries. Members (1951): 64,109.

Jewish Congregations.—Jews arrived in the colonies before 1650. The first congregation is recorded in 1656, in New York City, the Shearith Israel (Remnant of Israel). Members (1951): 5,000,000.

Latter-Day Saints, Church of Jesus Christ of.—A group in which the Bible, the Book of Mormon, the Doctrine and Covenants and the Pearl of Great Price are regarded as the word of God. The primitive church organization is sought and the same gifts of tongues, prophecy, revelation, visions, healings and interpretation of tongues are continued. Members (1950): 1,111,314.

Latter-Day Saints, Reorganized Church of Jesus Christ of.—A division among the Latter-Day Saints (Mormons) occurred on the death of Joseph Smith in 1844. His son, Joseph Smith, became presiding officer of this group, which has headquarters at Independence, Mo. Members (1951): 126,453.

Mennonite Church.—The largest group of the Mennonites who began arriving in the U. S. in 1683, settling in Germantown, Pa. They derive their name from Menno Simons, their outstanding leader, born 1496. Members (1951): 58,330.

Pentecostal Assemblies of the World, Inc.—A pentecostal holiness group originating in the early part of the century and found largely in the Midwest. Members (1950): 50,000.

The Protestant Episcopal Church.—This group entered the colonies with the earliest settlers as the Church of England. It

became autonomous, adopted its present name in 1789. Members (1950): 2,417,464.

Reformed Church in America.—This group was established by the earliest Dutch settlers of New York as the Reformed Protestant Dutch Church in 1628. It embraces many of the historic early colonial churches of New York and New Jersey and today has many strong churches in the middle and far West. Members (1951): 187,256.

The Salvation Army.—An evangelistic organization, with a military government, first set up by General William Booth in England and introduced into the U. S. in 1880. Members (1951): 227,821.

Seventh Day Adventists.—This body developed out of the Adventist movement (1833-1844), which emphasized the imminent personal return of Jesus Christ. It emphasized the observance of the seventh-day Sabbath and in 1863 was numerous enough to organize a conference. The denomination carries on extensive evangelistic, publishing, medical and educational work. Members (1951): 245,974.

Spiritualists, International General Assembly of.—Organized in Buffalo, N. Y., in 1936 for the purpose of chartering Spiritualist churches. Members (1947): 150,000.

Unitarian Association, American.—The Unitarian movement in Congregationalism, beginning in the eighteenth century, produced the American Unitarian Association in 1825. In 1865 a national conference was organized. Members (1951): 79,901.

United Pentecostal Church, Inc.—Pentecostal Church, Inc., and Pentecostal Assemblies of Jesus Christ merged Sept 25, 1945, at St. Louis, Mo. Members (1950): 100,000.

The Universalist Church of America.—Originated in the U. S. about 1785. In 1866, it was incorporated as the Universalist General Convention; but in 1942, the present name was adopted. Members (1951): 63,975.

Bishops of the Protestant Episcopal Church

Source: John H. Fitzgerald, Secretary, The House of Bishops, 7301 Ridge Blvd., Brooklyn 9, N. Y.

(Note: M—Missionary Bishop; C—Coadjutor; S—Suffragan)

Presiding Bishop: Henry K. Sherrill, New York City. **Vice President of National Council:** John B. Bentley, New York City.

Alabama: Chas. C. J. Carpenter, Birmingham; Randolph Claiborne (S), Mobile.
Alaska: William J. Gordon (M), Nenana.
Albany (N. Y.): Frederick L. Barry, David E. Richards (S).
Arizona: Arthur B. Kinsolving, II (M), Phoenix.
Arkansas: R. Bland Mitchell, Little Rock.
Atlanta (Ga.): John B. Walthour.
Bethlehem (Pa.): Frank W. Sterrett.

Brazil, Central: Louis C. Melcher (M), Rio de Janeiro.
Brazil, Southern: Athalicio T. Pithan, Porto Alegre.
Brazil, Southwestern: Egmont M. Krischke, Santa Maria.
California: Karl M. Block, Henry H. Shires (S), San Francisco.
Chicago: Wallace E. Conkling, Charles L. Street (S).

- Colorado: Harold L. Bowen, Denver.
 Connecticut: Walter H. Gray, Robert McC. Hatch (S), Hartford.
 Cuba: Alexander H. Blankingship (M), Havana.
 Dallas (Tex.): C. Avery Mason, Gerald F. Burrill (S).
 Delaware: Arthur R. McKinstry, Wilmington.
 Easton (Md.): Allen J. Miller.
 Eau Claire (Wis.): William W. Horstick.
 Erie (Pa.): William Crittenden.
 European Churches: J. I. B. Larned, Brooklyn, N. Y.
 Florida: Frank A. Juhan, Hamilton West (C), Jacksonville.
 Florida, South: Henry I. Louttit, Martin J. Bram (S), Orlando.
 Fond du Lac (Wis.): Harwood Sturtevant.
 Georgia: Middleton S. Barnwell, Savannah.
 Haiti: C. A. Voegeli (M), Port-au-Prince.
 Harrisburg (Pa.): J. Thomas Helstand.
 Honolulu: Harry S. Kennedy (M).
 Idaho: Frank A. Rhea (M), Boise.
 Indiana, Northern: Reginald Mallett, South Bend.
 Indianapolis: Richard A. Kirchhoffer.
 Iowa: Gordon V. Smith, Des Moines.
 Kansas: Goodrich R. Fenner, Topeka.
 Kentucky: Charles Clingman, Louisville.
 Lexington (Ky.): William R. Moody.
 Liberia: Bravid W. Harris (M), Monrovia.
 Long Island: James P. DeWolfe, Jonathan G. Sherman (S), Garden City, N. Y.
 Los Angeles: Francis E. I. Bloy, Donald J. Campbell (S).
 Louisiana: Girault M. Jones, New Orleans.
 Maine: Oliver L. Loring, Portland.
 Maryland: Noble C. Powell, Baltimore.
 Massachusetts: Norman B. Nash, Raymond A. Heron (S), Boston.
 Massachusetts, Western: William A. Lawrence, Springfield.
 Mexico: Efrain Salinas y Velasco (M), Mexico City.
 Michigan: Richard S. M. Emrich, Russell S. Hubbard (S), Detroit.
 Michigan, Northern: Herman R. Page, Marquette.
 Michigan, Western: Lewis B. Whittemore, Grand Rapids.
 Milwaukee: Benjamin F. P. Ivins, Donald Hallock (C).
 Minnesota: Stephen Keeler, Hamilton H. Kellogg (C), Minneapolis.
 Mississippi: Duncan M. Gray, Jackson.
 Missouri: Arthur C. Lichtenberger, St. Louis.
 Missouri, West: Edw. R. Welles, Grandview.
 Montana: Henry H. Daniels, Helena.
 Nebraska: Howard R. Brinker, Omaha.
 Nevada: William F. Lewis (M), Reno.
 Newark (N. J.): Benjamin M. Washburn, Theodore R. Ludlow (S).
 New Hampshire: Charles F. Hall, Concord.
 New Jersey: Wallace J. Gardner, Alfred L. Banyard (S), Trenton.
 New Mexico and Southwest Texas: James M. Stoney, Albuquerque, N. M.
 New York: Horace W. B. Donegan, Charles F. Boynton (S), New York City.
 New York, Central: Malcolm E. Peabody, Walter M. Higley (S), Syracuse.
 New York, Western: Lauriston L. Scaife, Buffalo.
 North Carolina: Edwin A. Penick, Raleigh; Richard H. Baker (C), Greensboro.
 (North) Carolina, East: Thomas H. Wright, Wilmington.
 (North) Carolina, Western: M. George Henry, Asheville.
 North Dakota: Richard R. Emery, Fargo.
 Ohio: Nelson M. Burroughs, Cleveland.
 Ohio, Southern: Henry W. Hobson, Cincinnati.
 Oklahoma: Thomas Casady, Chilton Powell (C), Oklahoma City.
 Olympia (Wash.): Stephen F. Bayne, Jr., Seattle.
 Oregon: Benjamin D. Dagwell, Portland.
 Oregon, Eastern: Lane W. Barton (M), Bend.
 Panama Canal Zone: Reginald H. Gooden (M), Ancon.
 Pennsylvania: Oliver J. Hart, Joseph G. Armstrong (S), Philadelphia.
 Philippines: Norman S. Binsted (M), Manila; Robert F. Wilner (S), Bontoc.
 Pittsburgh: Austin Pardue.
 Puerto Rico: Albert Swift (M), San Juan.
 Quincy (Ill.): William L. Essex, Peoria.
 Rhode Island: Granville G. Bennett, Providence.
 Rochester (N. Y.): Dudley S. Stark.
 Sacramento (Calif.): A. W. Noel Porter.
 Salina (Kans.): Shirley H. Nichols (M).
 San Joaquin (Calif.): Sumner F. D. Walters (M), Stockton.
 South Carolina: Thomas N. Carruthers, Charleston.
 (South) Carolina, Upper: John J. Gravatt, Columbia.
 South Dakota: W. Blair Roberts (M), Conrad H. Gesner (C), Sioux Falls.
 Spokane (Wash.): Edward M. Cross (M).
 Springfield (Ill.): Charles A. Clough.
 Tennessee: Edmund P. Dandridge, Nashville; Theodore N. Barth (C), Memphis.
 Texas: Clinton S. Quin, Houston; John E. Hines (C), Austin.
 Texas, North: George H. Quartermann (M), Amarillo.
 Texas, West: Everett H. Jones, San Antonio.
 Utah: Richard Watson, Salt Lake City.
 Vermont: Vedder Van Dyck, Burlington.
 Virginia: Frederick D. Goodwin, Robert F. Gibson (S), Richmond.
 Virginia, Southern: George P. Gunn, Norfolk.
 Virginia, Southwestern: Henry D. Phillips, Roanoke.
 Washington (D. C.): Angus Dun.
 West Virginia: Robert E. L. Strider, Wheeling; Wilburn C. Campbell (C), Charleston.
 Wyoming: James W. Hunter, Laramie.

Bishops of the Methodist Church

Source: Methodist Church Headquarters, New York City.

Raymond L. Archer; Singapore, Malaya.
Theodor Arvidson; Stockholm, Sweden.
Enrique C. Balloch; Santiago, Chile.
Sante Uberto Barbieri; Buenos Aires, Argentina.
Newell S. Booth; Elisabethville, Bel. Congo.
J. W. E. Bowen; Atlanta, Ga.
John W. Branscomb; Jacksonville, Fla.
Charles W. Brasharea; Chicago, Ill.
Robert N. Brooks; New Orleans, La.
Matthew W. Clair, Jr.; St. Louis, Mo.
D. Stanley Coors; St. Paul, Minn.
Fred P. Corson; Philadelphia, Pa.
Dana Dawson; Topeka, Kans.
F. Gerald Ensley; Des Moines, Iowa.
Marvin A. Franklin; Jackson, Miss.
Paul N. Garber; Richmond, Va.
A. Raymond Grant; Portland, Oreg.
Costen J. Harrell; Charlotte, N. C.
Ivan Lee Holt; St. Louis, Mo.
Gerald H. Kennedy; Los Angeles, Calif.
Willis J. King; Monrovia, Liberia.
W. Earl Ledden; Syracuse, N. Y.
John Wesley Lord; Boston, Mass.
Edgar A. Love; Baltimore, Md.

Paul E. Martin; Little Rock, Ark.
William C. Martin; Dallas, Tex.
Shot K. Mondol; Hyderabad, India.
Arthur J. Moore; Atlanta, Ga.
Frederick B. Newell; New York, N. Y.
H. Clifford Northcott; Madison, Wis.
G. Bromley Oxnam; Washington, D. C.
Glenn R. Phillips; Denver, Colo.
J. Waskom Pickett; Delhi, India.
Clare Purcell; Birmingham, Ala.
Richard C. Raines; Indianapolis, Ind.
Marshall R. Reed; Detroit, Mich.
Clement D. Rockey; Lucknow, India.
Roy H. Short; Nashville, Tenn.
A. Frank Smith; Houston, Tex.
W. Angie Smith; Oklahoma City, Okla.
John A. Subhan; Bombay, India.
Donald H. Tippet; San Francisco, Calif.
José Valencia; Manila, Philippines.
Edwin E. Voigt; Aberdeen, S. Dak.
Ralph A. Ward; Hong Kong.
William T. Watkins; Louisville, Ky.
H. Bascom Watts; Lincoln, Nebr.
Hazen G. Werner; Columbus, Ohio.
Lloyd C. Wicke; Pittsburgh, Pa.

Roman Catholic Hierarchy of the U. S.

Source: National Catholic Welfare Conference, Washington, D. C.

(Note: A—Auxiliary; C—Coadjutor. Archbishops are shown in boldface type, Bishops in lightface. An Archbishop heading a diocese is called an "Archbishop ad Personam"; i.e., he bears the personal title of Archbishop.)

The Apostolic Delegate to the U. S. is Archbishop Amleto Giovanni Cicognani. Though he is not actually a member of the U. S. hierarchy, he is closely connected with it. His office is in Washington, D. C.)

Archdioceses

Baltimore, Md.: Francis P. Keough; Lawrence J. Shehan (A).
Boston, Mass.: Richard J. Cushing; Eric F. MacKenzie (A).
Chicago, Ill.: Samuel Cardinal Stritch; Bernard J. Shell (A); William D. O'Brien (A).
Cincinnati, Ohio: Karl J. Alter.
Denver, Colo.: Urban J. Vehr.
Detroit, Mich.: Edward Cardinal Mooney; Allen J. Babcock (A); Alexander M. Zaleski (A).
Dubuque, Iowa: Henry P. Bohlman; Leo Binz (C); Loras T. Lane (A).
Indianapolis, Ind.: Paul C. Schulte.
Kansas City, Kans.: Edward J. Hunkeler.
Los Angeles, Calif.: J. Francis A. McIntyre; Joseph T. McGucken (A); Timothy Manning (A).
Louisville, Ky.: John A. Floersch.
Milwaukee, Wis.: Moses E. Killey; Roman R. Atkielski (A).
Newark, N. J.: (Vacant); James A. McNulty (A).
New Orleans, La.: Joseph F. Rummel; L. Abel Caillouet (A).
New York, N. Y.: Francis Cardinal Spellman; Stephen J. Donahue (A); Joseph P. Donahue (A); Joseph F. Flannelly (A); Fulton J. Sheen (A).
Omaha, Nebr.: Gerald T. Bergan.

Philadelphia, Pa.: John F. O'Hara, C.S.C.; Joseph C. McCormick (A); Joseph McShea (A).
Portland, Oreg.: Edward D. Howard.
St. Louis, Mo.: Joseph E. Ritter; John P. Cody (A); Charles H. Helmsing (A).
St. Paul, Minn.: John G. Murray; James J. Byrne (A).
San Antonio, Tex.: Robert E. Lucey.
San Francisco, Calif.: John J. Mitty; Hugh A. Donohoe (A); Merlin J. Gullfoyle (A).
Santa Fe, N. Mex.: Edwin V. Byrne.
Seattle, Wash.: Thomas A. Connolly.
Washington, D. C.: Patrick A. O'Boyle; John M. McNamara (A); Patrick J. McCormick (A).

Dioceses

Alaska (vicariate): Francis D. Gleeson, S.J., Vicar Apostolic.
Albany, N. Y.: Edmund F. Gibbons; William A. Scully (C).
Alexandria, La.: Charles P. Greco.
Altoona, Pa.: Richard T. Gullfoyle.
Amarillo, Tex.: Lawrence J. FitzSimon.
Austin, Tex.: Louis J. Reicher.
Baker City, Oreg.: Francis P. Leipzig.
Bellevue, Ill.: Albert R. Zuroweste.
Bismarck, N. Dak.: Lambert A. Hoch.
Boise, Idaho: Edward J. Kelly.
Brooklyn, N. Y.: Thomas E. Molloy; Raymond Kearney (A); J. J. Boardman (A).

- Buffalo, N. Y.: Joseph A. Burke; Leo R. Smith (A).
 Burlington, Vt.: Edward F. Ryan.
 Camden, N. J.: Bartholomew J. Eustace.
 Charleston, S. C.: John J. Russell.
 Cheyenne, Wyo.: Hubert M. Newell.
 Cleveland, Ohio: Edward F. Hoban; Floyd L. Begin (A).
 Columbus, Ohio: Michael J. Ready; Edward G. Hettinger (A).
 Corpus Christi, Tex.: Mariano S. Garriga.
 Covington, Ky.: William T. Mulloy.
 Crookston, Minn.: Francis J. Schenk.
 Dallas, Tex.: Joseph P. Lynch; Thomas K. Gorman (C); Augustine Danglmayr (A).
 Davenport, Iowa: Ralph L. Hayes.
 Des Moines, Iowa: Edward C. Daly, O.P.
 Dodge City, Kans.: John B. Franz.
 Duluth, Minn.: Thomas A. Welch.
 El Paso, Tex.: Sidney M. Metzger.
 Erie, Pa.: John M. Gannon; Edward P. McManaman (A).
 Evansville, Ind.: Henry J. Grimmelmsman.
 Fall River, Mass.: James L. Connolly.
 Fargo, N. Dak.: Aloysius J. Muench; Leo F. Dworschak (A).
 Fort Wayne, Ind.: John F. Noll; Leo A. Pursley (A).
 Gallup, N. Mex.: Bernard T. Espelage, O.F.M.
 Galveston, Tex.: Wendelin J. Nold.
 Grand Island, Nebr.: John L. Paschang.
 Grand Rapids, Mich.: Francis J. Haas.
 Great Falls, Mont.: William J. Condon.
 Green Bay, Wis.: Stanislaus V. Bona; John B. Grellinger (A).
 Greensburg, Pa.: Hugh L. Lamb.
 Guam (vicariate): Apollinaris W. Baumgartner, O.F.M. Cap., Vicar Apostolic.
 Harrisburg, Pa.: George L. Leech.
 Hartford, Conn.: Henry J. O'Brien.
 Helena, Mont.: Joseph M. Gilmore.
 Honolulu, Hawaii: James J. Sweeney.
 Joliet, Ill.: Martin D. McNamara.
 Juneau, Alaska: Robert D. O'Flanagan.
 Kansas City, Mo.: Edwin V. O'Hara; Joseph Marling, C.Pp.S. (A).
 La Crosse, Wis.: John P. Treacy.
 Lafayette, Ind.: John G. Bennett.
 Lafayette, La.: Jules B. Jeanmard; Maurice Schexnayder (A).
 Lansing, Mich.: Joseph H. Albers.
 Lincoln, Nebr.: Louis B. Kucera.
 Little Rock, Ark.: Albert L. Fletcher.
 Madison, Wis.: William P. O'Connor.
 Manchester, N. H.: Matthew F. Brady.
 Marquette, Mich.: Thomas L. Noa.
 Mobile, Ala.: Thomas J. Toolen.
 Monterey-Fresno, Calif.: Philip G. Scher; Aloysius J. Willinger, C.Ss.R. (C).
 Nashville, Tenn.: William L. Adrian.
 Natchez, Miss.: Richard O. Gerow.
 Ogdensburg, N. Y.: Bryan J. McEntegart.
 Oklahoma City-Tulsa, Okla.: Eugene J. McGuinness.
 Owensboro, Ky.: Francis R. Cotton.
 Paterson, N. J.: Thomas A. Boland.
 Peoria, Ill.: William E. Cousins.
 Pittsburgh, Pa.: John F. Dearden.
 Ponce, P. R.: James E. McManus, C.Ss.R.
 Portland, Maine: Joseph E. McCarthy; Daniel J. Feeney (C).
 Providence, R. I.: Russell J. McVinney.
 Pueblo, Colo.: Joseph C. Willing.
 Raleigh, N. C.: Vincent S. Waters; James J. Navagh (A).
 Rapid City, S. Dak.: William T. McCarty, C.Ss.R.
 Reno, Nev.: Robert J. Dwyer.
 Richmond, Va.: Peter L. Ireton; Joseph H. Hodges (A).
 Rochester, N. Y.: James E. Kearney.
 Rockford, Ill.: John J. Boylan.
 Sacramento, Calif.: Robert J. Armstrong.
 Saginaw, Mich.: Stephen S. Woznicki.
 St. Augustine, Fla.: Joseph P. Hurley; Thomas J. McDonough (A).
 St. Cloud, Minn.: Joseph F. Busch; Peter W. Bartholome (C).
 St. Joseph, Mo.: Charles H. Le Blond.
 Salina, Kans.: Francis A. Thill.
 Salt Lake City, Utah: Duane G. Hunt; J. Lennox Federal (A).
 San Diego, Calif.: Charles F. Buddy.
 San Juan, P. R.: James P. Davis.
 Savannah-Atlanta, Ga.: Gerald P. O'Hara; Francis E. Hyland (A).
 Scranton, Pa.: William J. Hafey; Henry T. Klonowski (A).
 Sioux City, Iowa: Joseph M. Mueller.
 Sioux Falls, S. Dak.: William O. Brady.
 Spokane, Wash.: Charles D. White.
 Springfield, Ill.: William A. O'Connor.
 Springfield, Mass.: Christopher J. Weldon.
 Steubenville, Ohio: John K. Musslo.
 Superior, Wis.: Albert G. Meyer.
 Syracuse, N. Y.: Walter A. Foery; David F. Cunningham (A).
 Toledo, Ohio: George J. Rehrling.
 Trenton, N. J.: George W. Ahr.
 Tucson, Ariz.: Daniel J. Gercke.
 Wheeling, W. Va.: John J. Swint; Thomas J. McDonnell (C).
 Wichita, Kans.: Mark K. Carroll.
 Wilmington, Del.: Edmond J. Fitzmaurice.
 Winona, Minn.: Edward J. Fitzgerald.
 Worcester, Mass.: John J. Wright.
 Yakima, Wash.: Joseph P. Dougherty.
 Youngstown, Ohio: James A. McFadden; Emmet M. Walsh (C).
 Army and Navy: Francis Cardinal Spellman, Military Vicar; William Arnold, Military Delegate; James H. Griffiths, Military Delegate.
 Belmont, N. C. (Abbacy Nullius): Vincent G. Taylor, O.S.B. (Abbot).
 Philadelphia, Pa. (Byzantine Rite): Constantine Bohachevsky; Ambrose A. Senyshyn, O.S.B.M. (A).
 Pittsburgh, Pa. (Greek Rite): Daniel Ivancho.

Roman Catholic Pontiffs

Source for Catholic information: The National Catholic Almanac.

St. Peter, of Bethsaida in Galilee, Prince of the Apostles, was the first Pope. He resided first in Antioch and then for twenty-five years in Rome, where he suffered martyrdom in 64 or 67 of the modern era. He was followed by St. Linus.

Name	Birthplace	Accession	End of reign	Name	Birthplace	Accession	End of reign
St. Linus	Tuscia	67	76	Sabinianus	Tuscia	604	606
St. Anacleto	Rome	76	88	Boniface III	Rome	607	607
(Cletus)				St. Boniface IV	Marsi	608	615
St. Clement	Rome	88	97	St. Deusdedit	Rome	615	618
St. Evaristus	Greece	97	105	(Adeodatus I)			
St. Alexander I	Rome	105	115	Boniface V	Naples	619	625
St. Sixtus I	Rome	115	125	Honorius I	Campania	625	638
St. Telesphorus	Greece	125	136	Severinus	Rome	640	640
St. Hyginus	Greece	136	140	John IV	Dalmatia	640	642
St. Pius I	Aquileia	140	155	Theodore I	Greece	642	649
St. Anicetus	Syria	155	166	St. Martin I	Todi	649	655
St. Soter	Campania	166	175	St. Eugenius I	Rome	654	657
St. Eleutherus	Epirus	175	189	St. Vitalian	Segni	657	672
St. Victor I	Africa	189	199	Adeodatus II	Rome	672	676
St. Zephyrinus	Rome	199	217	Donus	Rome	676	678
St. Callistus I	Rome	217	222	St. Agatho	Sicily	678	681
St. Urban I	Rome	222	230	St. Leo II	Sicily	682	683
St. Pontian	Rome	230	235	St. Benedict II	Rome	684	685
St. Anterus	Greece	235	236	John V	Syria	685	686
St. Fabian	Rome	236	250	Conon	Unknown	686	687
St. Cornelius	Rome	251	253	St. Sergius I	Syria	687	701
St. Lucius I	Rome	253	254	John VI	Greece	701	705
St. Stephen I	Rome	254	257	John VII	Greece	705	707
St. Sixtus II	Greece	257	258	Sisinnius	Syria	708	708
St. Dionysius	Unknown	259	268	Constantine	Syria	708	715
St. Felix I	Rome	269	274	St. Gregory II	Rome	715	731
St. Eutychian	Luni	275	283	St. Gregory III	Syria	731	741
St. Caius	Dalmatia	283	296	St. Zachary	Greece	741	752
St. Marcellinus	Rome	296	304	Stephen II	Rome	752	752
St. Marcellus I	Rome	308	309	Stephen III	Rome	752	757
St. Eusebius	Greece	309	309	St. Paul I	Rome	757	767
St. Melchisedes	Africa	311	314	Stephen IV	Sicily	768	772
St. Sylvester I	Rome	314	335	Adrian I	Rome	772	795
St. Marcus	Rome	336	336	St. Leo III	Rome	795	816
St. Julius I	Rome	337	352	Stephen V	Rome	816	817
St. Liberius	Rome	352	366	St. Paschal I	Rome	817	824
St. Damasus I	Spain	366	384	Eugenius II	Rome	824	827
St. Siricius	Rome	384	399	Valentine	Rome	827	827
St. Anastasius I	Rome	399	401	Gregory IV	Rome	827	844
St. Innocent I	Albano	401	417	Sergius II	Rome	844	847
St. Zozimus	Greece	417	418	St. Leo IV	Rome	847	855
St. Boniface I	Rome	418	422	Benedict III	Rome	855	858
St. Celestine I	Campania	422	432	St. Nicholas	Rome	858	867
St. Sixtus III	Rome	432	440	Adrian II	Rome	867	872
St. Leo I	Tuscia	440	461	John VIII	Rome	872	882
(the Great)				Marinus I	Gallese	882	884
St. Hilary	Sardo	461	468	St. Adrian III	Rome	884	885
St. Simplicius	Tivoli	468	483	Stephen VI	Rome	885	891
St. Felix III (II)	Rome	483	492	Formosus	Portus	891	896
St. Gelasius I	Africa	492	496	Boniface VI	Rome	896	896
Anastasius II	Rome	496	498	Stephen VII	Rome	896	897
St. Symmachus	Sardo	498	514	Romanus	Gallese	897	897
St. Hormisdas	Frosinone	514	523	Theodore II	Rome	897	897
St. John I	Tuscia	523	526	John IX	Tivoli	898	900
St. Felix IV (III)	Sannio	526	530	Benedict IV	Rome	900	903
Boniface II	Rome	530	532	Leo V	Ardea	903	903
John II	Rome	533	535	Sergius III	Rome	904	911
St. Agapitus I	Rome	535	536	Anastasius III	Rome	911	913
St. Silverius	Campania	536	537	Landus	Sabina	913	914
Vigilius	Rome	537	555	John X	Tossignano	914	928
Pelagius I	Rome	556	561	Leo VI	Rome	928	928
John III	Rome	561	574	Stephen VIII	Rome	928	931
Benedict I	Rome	575	579	John XI	Rome	931	935
Pelagius II	Rome	579	590	Leo VII	Rome	936	939
St. Gregory I	Rome	590	604	Stephen IX	Rome	939	942
(the Great)				Marinus II	Rome	942	946

Name	Birthplace	Access.	End of reign	Name	Birthplace	Access.	End of reign
Agapitus II	Rome	946	955	Bl. Benedict XI	Treviso	1303	1304
John XII	Tusculum	955	964	Clement V	France	1305	1314
Leo VIII	Rome	963	965	John XXII	Cahors	1316	1334
Benedict V	Rome	964	966	Benedict XII	France	1334	1342
John XIII	Rome	965	972	Clement VI	France	1342	1352
Benedict VI	Rome	973	974	Innocent VI	France	1352	1362
Benedict VII	Rome	974	983	Bl. Urban V	France	1362	1370
John XIV	Pavia	983	984	Gregory XI	France	1370	1378
John XV	Rome	985	996	Urban VI	Naples	1378	1389
Gregory V	Saxony	996	999	Boniface IX	Naples	1389	1404
Sylvester II	Alvernia	999	1003	Innocent VII	Sulmona	1404	1406
John XVII	Rome	1003	1003	Gregory XIII	Venetia	1406	1415
John XVIII	Rome	1004	1009	Martin V	Rome	1417	1431
Sergius IV	Rome	1009	1012	Eugene IV	Venetia	1431	1447
Benedict VIII	Tusculum	1012	1024	Nicholas V	Sarzana	1447	1455
John XIX	Tusculum	1024	1032	Callistus III	Valencia	1455	1458
Benedict IX*	Tusculum	1032	1044	Pius II	Siena	1458	1464
Sylvester III	Rome	1045	1045	Paul II	Venetia	1464	1471
Benedict IX (2nd time)	....	1045	1045	Sixtus IV	Savona	1471	1484
Gregory VI	Rome	1045	1046	Innocent VIII	Genoa	1484	1492
Clement II	Saxony	1046	1047	Alexander VI	Valencia	1492	1503
Benedict IX (3rd time)	....	1047	1048	Pius III	Siena	1503	1503
Damasus II	Bavaria	1048	1048	Julius II	Savona	1503	1513
St. Leo IX	Egisheim-Dagsburg	1049	1054	Leo X	Florence	1513	1521
Victor II	Dollnstein-Hirschberg	1055	1057	Adrian VI	Utrecht	1522	1523
Stephen X	Lorraine	1057	1058	Clement VII	Florence	1523	1534
Nicholas II	Burgundy	1059	1061	Paul III	Rome	1534	1549
Alexander II	Milan	1061	1073	Julius III	Rome	1550	1555
St. Gregory VII	Tuscia	1073	1085	Marcellus II	Montepulciano	1555	1555
Bl. Victor III	Benevento	1086	1087	Paul IV	Naples	1555	1559
Bl. Urban II	France	1088	1099	Pius IV	Milan	1559	1565
Paschal II	Ravenna	1099	1118	St. Pius V	Bosco	1566	1572
Gelasius II	Gaeta	1118	1119	Gregory XIII	Bologna	1572	1585
Callistus II	Burgundy	1119	1124	Sixtus V	Grottammare	1585	1590
Honorius II	Flagnano	1124	1130	Urban VII	Rome	1590	1590
Innocent II	Rome	1130	1143	Gregory XIV	Cremona	1590	1591
Celestine II	Città di Castello	1143	1144	Innocent IX	Bologna	1591	1591
Lucius II	Bologna	1144	1145	Clement VIII	Florence	1592	1605
Bl. Eugene III	Pisa	1145	1153	Leo XI	Florence	1605	1605
Anastasius IV	Rome	1153	1154	Paul V	Rome	1605	1621
Adrian IV	England	1154	1159	Gregory XV	Bologna	1621	1623
Alexander III	Siena	1159	1181	Urban VIII	Florence	1623	1644
Lucius III	Lucca	1181	1185	Innocent X	Rome	1644	1655
Urban III	Milan	1185	1187	Alexander VII	Siena	1655	1667
Gregory VIII	Benevento	1187	1187	Clement IX	Pistola	1667	1689
Clement III	Rome	1187	1191	Clement X	Rome	1670	1676
Celestine III	Rome	1191	1198	Innocent XI	Como	1676	1689
Innocent III	Anagni	1198	1216	Alexander VIII	Venetia	1689	1691
Honorius III	Rome	1216	1227	Innocent XII	Naples	1691	1700
Gregory IX	Anagni	1227	1241	Clement XI	Urbino	1700	1721
Celestine IV	Milan	1241	1241	Innocent XIII	Rome	1721	1724
Innocent IV	Genoa	1243	1254	Benedict XIII	Rome	1724	1730
Alexander IV	Anagni	1254	1261	Clement XII	Florence	1730	1740
Urban IV	Troyes	1261	1264	Benedict XIV	Bologna	1740	1758
Clement IV	France	1265	1268	Clement XIII	Venetia	1758	1769
Bl. Gregory X	Placenza	1271	1276	Clement XIV	Rimini	1769	1774
Bl. Innocent V	Savoy	1276	1276	Pius VI	Cesena	1775	1799
Adrian V	Genoa	1276	1276	Pius VII	Cesena	1800	1823
John XXI	Portugal	1276	1277	Leo XII	Fabriziano	1823	1829
Nicholas III	Rome	1277	1280	Pius VIII	Cingoli	1829	1830
Martin IV	France	1281	1285	Gregory XVI	Belluno	1831	1846
Honorius IV	Rome	1285	1287	Pius IX	Senigallia	1846	1878
Nicholas IV	Ascoli	1288	1292	Leo XIII	Carpineto	1878	1903
St. Celestine V	Isernia	1294	1294	Pius X	Riese	1903	1914
Boniface VIII	Anagni	1294	1303	Benedict XV	Genoa	1914	1922
				Pius XI	Desio	1922	1939
				Pius XII	Rome	1939	

* If the triple removal of Benedict IX was not valid, Sylvester III, Gregory VI and Clement II were antipopes.
 † Note: This list of Popes, adapted from the *Annuario Pontificio*, is in accordance with the recent revisions made by Monsignor Vercelli, Prefect of the Vatican's archives. All Popes before Sylvester I are listed as martyrs; other martyrs were: St. John I, St. Silverius and St. Martin I. The accession year is that during which the Pope was elected.

Antipopes

Antipopes were those who falsely claimed Papal Sovereignty. The dates and, in some cases, Roman numerals after the names account for occasional discrepancies in the succession of the Popes.

Name	Birthplace	Access.	End of reign	Name	Birthplace	Access.	End of reign
St. Hippolytus	Rome	217	235	Clement III	Parma	1080	1100
Novatian	Rome	251	...	Theodoric	.....	.....	1100
Felix II	Rome	355	365	Albert	.....	.....	1102
Ursinus	.....	366	367	Sylvester IV	Rome	1105	1111
Eulalius	.....	418	419	Gregory VIII	France	1118	1121
Lawrence	.....	498	501	Celestine II	Rome	.....	1124
Dioscorus	Alexandria	530	530	Anacletus II	Rome	1130	1138
Theodore	.....	...	687	Victor IV	.....	1138	1138
Paschal	.....	...	687	Victor IV*	Montecelio	1159	1164
Constantine	Nepi	767	769	Paschal III	.....	1164	1168
Philip	.....	768	768	Callistus III	Arezzo	1168	1178
John	.....	...	844	Innocent III	Sezze	1179	1180
Anastasius	.....	855	855	Nicholas V	Corvaro	1328	1330
Christopher	Rome	903	904	Clement VII	.....	1378	1394
Boniface VII	Rome	974	974	Benedict XIII	Aragon	1394	1423
Boniface VII	.....	984	985	Alexander V	Crete	1409	1410
(2nd time)				John XXIII	Naples	1410	1415
John XVI	Rossano	997	998	Felix V	.....	1439	1449
Gregory	.....	...	1012				
Benedict X	Rome	1058	1059				
Honorius II	Verona	1061	1072				

* Did not recognize his predecessor of 1138, who, only two months after claiming the Papacy, submitted to the rightful Pope, Innocent II.

The College of Cardinals

(NOTE: When complete, the College of Cardinals has 70 members, of whom 6 are cardinal bishops, 50 are cardinal priests and 14 are cardinal deacons. At present, there are 47 members, of whom 6 are cardinal bishops, 38 are cardinal priests and 3 are cardinal deacons.)

Cardinal Bishops

Year of creation	Name	Office or dignity	Nationality
1936	Eugene Tisserant	Bishop of Ostia, Porto, and Santa Rufina; Dean of the Sacred College of Cardinals; Secretary of the Sacred Congregation for the Oriental Church	French
1946	Clemente Micara	Bishop of Velletri; Vicar General of Rome; Prefect of the Sacred Congregation of the Affairs of Religious; Pro-Prefect of the Sacred Congregation of Rites	Italian
1937	Giuseppe Pizzardo	Bishop of Albano; Secretary of the Supreme Sacred Congregation of the Holy Office; Prefect of the Sacred Congregation of Seminaries and Universities	Italian
1946	Benedetto Aloisi Masella	Bishop of Palestrina; Pro-Prefect of the Sacred Congregation of the Sacraments; Archpriest of St. John Lateran's Basilica	Italian
1937	Adeodato Giovanni Piazza, O. C. D.	Bishop of Sabina; Secretary of the Sacred Consistorial Congregation	Italian
1933	Federico Tedeschini	Bishop of Frascati; Archpriest of St. Peter's Basilica; Prefect of the Sacred Congregation of the Basilica of St. Peter; Apostolic Secretary	Italian

Cardinal Priests

1916	Alessio Ascalesi	Archbishop of Naples	Italian
1925	Alessandro Verde	Archpriest of Liberian Patriarchal Basilica of St. Mary Major	Italian
1927	Joseph Ernest Van Roey	Archbishop of Malines	Belgian
1927	Pedro Segura y Saenz	Archbishop of Sevilla	Spanish
1929	Ildefonso Schuster, O. S. B.	Archbishop of Milan	Italian
1929	Emanuel Goncalves Cerejeira	Patriarch of Lisbon	Portuguese
1930	Achilles Lienart	Bishop of Lille	French
1933	Pietro Fumasoni-Biondi	Prefect of the Sacred Congregation for the Propagation of the Faith	Italian
1933	Maurilio Fossati	Archbishop of Turin	Italian
1933	Elia dalla Costa	Archbishop of Florence	Italian
1933	Theodore Innitzer	Archbishop of Vienna	Austrian
1935	Ignazio Tappouni	Syrian Patriarch of Antioch	Iraqian
1935	Santiago Copello	Archbishop of Buenos Aires	Argentine
1935	Domenico Jorio	Prefect of the Sacred Congregation of the Sacraments	Italian
1935	Massimo Massimi	Prefect of the Supreme Tribunal of the Apostolic Signature; President of the Commission on the Authentic Interpretation of the Code of Canon Law	Italian
1937	Pierre Marie Gerlier	Archbishop of Lyon	French
1946	Gregory Peter XV Agagianian	Patriarch of Cilicia of the Armenians	Transcaucasian
1946	Edward Mooney	Archbishop of Detroit	American
1946	Jules Saliège	Archbishop of Toulouse	French
1946	James McGuigan	Archbishop of Toronto	Canadian
1946	Samuel A. Stritch	Archbishop of Chicago	American
1946	Émile Roques	Archbishop of Rennes	French
1946	Jon De Jong	Archbishop of Utrecht	Dutch
1946	Carlo Carmelo de Vasconcellos Mota	Archbishop of São Paulo	Brazilian
1946	Norman Gilroy	Archbishop of Sydney	Australian
1946	Francis J. Spellman	Archbishop of New York	American
1946	José María Caro Rodríguez	Archbishop of Santiago	Chilean
1946	Teodosio Clemente de Gouveia	Archbishop of Lourenço Marques, Mozambique	Portuguese
1946	Jalme de Barros Camara	Archbishop of Rio de Janeiro	Brazilian
1946	Enrique Pla y Deniel	Archbishop of Toledo and Primate of Spain	Spanish
1946	Manuel Arteaga y Betancourt	Archbishop of Havana	Cuban
1946	Joseph Frings	Archbishop of Cologne	German
1946	Juan Gualberto Guevara	Archbishop of Lima	Peruvian
1946	Bernard Griffin	Archbishop of Westminster	English
1946	Jozsef Mindszenty	Archbishop of Esztergom and Primate of Hungary	Hungarian
1946	Ernesto Ruffini	Archbishop of Palermo	Italian
1946	Antonio Caggiano	Bishop of Rosario	Argentine
1946	Thomas Tien, S. V. D.	Archbishop of Peiping	Chinese

Cardinal Deacons

1935	Nicola Canali	Grand Penitentiary; President of the Commission charged with the Administration of Vatican City	Italian
1936	Giovanni Mercati	Librarian and Archivist of the Holy Roman Church; Camerlengo of the Sacred College of Cardinals	Italian
1946	Giuseppe Bruno	Prefect of the Sacred Congregation of the Council; Secretary of the Commission on the Authentic Interpretation of the Code of Canon Law	Italian

Archbishops of Canterbury

Sequence	Name	Year created	Sequence	Name	Year created
1	Augustine (consecrated Bishop 597)	601	50	Robert Winchelsey	1294
2	Laurentius	604	51	Walter Reynolds	1313
3	Mellitus	619	52	Simon Mepeham	1328
4	Justus	624	53	John Stratford	1333
5	Honorius	627	54	Thomas Bradwardine	1349
6	Deusededit	655	55	Simon Islip	1349
7	Theodorus	668	56	Simon Langham	1366
8	Beorhtweald	693	57	William Whittlesey	1368
9	Tatwine	731	58	Simon Sudbury	1375
10	Nothelm	735	59	William Courtenay	1381
11	Cuthbeorht	740	60	Thomas Arundel	1396
12	Breguwine	761	61	Roger Walden	1398
13	Jaenbeorht	765	62	Thomas Arundel (restored)	1399
14	Æthelheard	793	63	Henry Chichele	1414
15	Wulfred	805	64	John Stafford	1443
16	Feologild	832	65	John Kemp	1452
17	Ceolnoth	833	66	Thomas Bouchier	1454
18	Æthelred	870	67	John Morton	1486
19	Plegmund	890	68	Henry Dean	1501
20	Æthelhelm	914	69	William Warham	1503
21	Wulfhelm	923	70	Thomas Cranmer	1533
22	Oda	942	71	Reginald Pole	1556
23	Ælfsige	959	72	Matthew Parker	1559
24	Beorhthelm	959	73	Edmund Grindal	1576
25	Dunstan	960	74	John Whitgift	1583
26	Æthelgar	988	75	Richard Bancroft	1604
27	Sigeric Serio	990	76	George Abbot	1611
28	Ælfric	995	77	William Laud	1633
29	Ælfheah	1006	78	William Juxon	1660
30	Lyfing	1013	79	Gilbert Sheldon	1668
31	Æthelnoth	1020	80	William Sancroft	1678
32	Eadsige	1038	81	John Tillotson	1691
33	Robert (Champart) of Jumèges	1051	82	Thomas Tenison	1695
34	Stigand	1052	83	William Wake	1716
35	Lanfranc	1070	84	John Potter	1737
36	Anselm	1093	85	Thomas Herring	1747
37	Ralph d'Escures	1114	86	Matthew Hutton	1757
38	William de Corbell	1123	87	Thomas Secker	1758
39	Theobald	1139	88	Frederick Cornwallis	1768
40	Thomas Becket	1162	89	John Moore	1783
41	Richard (of Dover)	1174	90	Charles Manners-Sutton	1806
42	Baldwin	1185	91	William Howley	1828
43	Hubert Walter	1193	92	John Bird Sumner	1848
44	Stephen Langton	1207	93	Charles Thomas Longley	1862
45	Richard le Grant (of Wetharshed)	1229	94	Archibald Campbell Tait	1868
46	Edmund Rich	1234	95	Edward White Benson	1883
47	Boniface of Savoy	1245	96	Frederick Temple	1896
48	Robert Kilwardby	1273	97	Randall Thomas Davidson	1903
49	John Pecham (Peckham)	1279	98	Cosmo Gordon Lang	1928
			99	William Temple	1942
			100	Geoffrey Francis Fisher	1945

History of the Christian Church in England

5th century	Arrival in England of Angles, Saxons and Jutes. Church isolated from Rome.	1646	Puritan rebellion. Presbyterianism becomes state religion.
597	Augustine sent to convert Saxons.	1660	Restoration. Power of Church of England restored under Charles II.
1534	Act of Supremacy makes king head of Church of England.	1739	John Wesley founds Methodism.
1554	Church again united with Rome under reign of Mary.	1829	Catholic emancipation.
1558	Church restored to Crown at accession of Elizabeth.	1833-45	Oxford Movement attempts to bring Church of England closer to ideals of ancient Church. This movement continues as important influence in present-day Church of England.
1611	King James version of Bible published.		

Jewish Congregational and Rabbinical Organizations

Central Conference of American Rabbis: 222 Buford Pl., Macon, Ga. Founded: 1889.

Rabbinical Assembly of America: 3080 Broadway, New York 27, N. Y.

Rabbinical Council of America, Inc.: 331 Madison Ave., New York 17, N. Y.

Synagogue Council of America: 110 W. 42nd St., New York 36, N. Y.

Union of American Hebrew Congregations: 838 Fifth Ave., New York 21, N. Y.

Union of Orthodox Rabbis of the U. S. and Canada: 132 Nassau St., New York 38.

The United Synagogue of America: 3080 Broadway, New York 27, N. Y.

Union of Orthodox Jewish Congregations of America: 305 Bdwy., New York 7.

Religious and Secular Holidays, 1953

NEW YEAR'S DAY—Thursday, Jan. 1—A legal holiday in all states and the District of Columbia, New Year's Day has its origin in Roman times, when sacrifices were offered to Janus, the two-faced Roman deity who looked back on the past and forward to the future.

EPIPHANY—Tuesday, Jan. 6—Falls the twelfth day after Christmas and commemorates the manifestation of Jesus as the Son of God, as represented by the adoration of the Magi, the baptism of Jesus, and the miracle of the wine at the marriage feast at Cana. Epiphany originally marked the beginning of the carnival season preceding Lent, and the evening (sometimes the eve) is known as Twelfth Night.

LINCOLN'S BIRTHDAY—Thursday, Feb. 12—A legal holiday in many states, this day was first formally observed in Washington, D. C., in 1866, when both houses of Congress gathered for a memorial address in honor of the dead President.

ST. VALENTINE'S DAY—Saturday, Feb. 14—This day is the festival of two 3rd-century martyrs, both named St. Valentine. It is not known why this day is associated with lovers. It may derive from an old pagan festival about this time of year, or it may have been inspired by the belief that birds mate on this day.

SHROVE TUESDAY—Feb. 17—Falls the day before Ash Wednesday and marks the end of the carnival season, which once began on Epiphany but is now usually celebrated the last three days before Lent. In France, the day is known as Mardi Gras (Fat Tuesday), and Mardi Gras celebrations are also held in several American cities, particularly in New Orleans. The day is sometimes called Pancake Tuesday by the English because of the need of using up fats which were prohibited during Lent.

ASH WEDNESDAY—Feb. 18—The first day of the Lenten season, which lasts forty days. Having its origin sometime before A.D. 1000, it is a day of public penance and is marked in the Roman Catholic Church by the burning of the palms blessed on the previous Palm Sunday. With his thumb, the priest then marks a cross upon the forehead of each worshipper. The Anglican

Church and a few Protestant groups in the United States also celebrate the day, but generally without the use of ashes.

WASHINGTON'S BIRTHDAY—Sunday, Feb. 22—The birthday of George Washington is celebrated as a legal holiday in every state of the Union, the District of Columbia and all territories. The observance began 1796, 3 years before his death.

ST. PATRICK'S DAY—Tuesday, March 17—St. Patrick, patron saint of Ireland, has been honored in America since the first days of the nation. There are many dinners and meetings and perhaps the most notable part of the observance is the annual St. Patrick's Day parade on Fifth Avenue in New York City.

PALM SUNDAY—March 29—Is observed the Sunday before Easter to commemorate the entry of Jesus into Jerusalem. The procession and the ceremonies introducing the benediction of palms probably had their origin in Jerusalem.

FIRST DAY OF PASSOVER (Pesach)—Tuesday, March 31 (Nisan 15)—The Feast of the Passover, also called the Feast of Unleavened Bread, commemorates the escape of the first-born of the Jews from the Angel of Death, who took from the Egyptians their first-born, thus fulfilling the prophecy of Moses. As the Jews fled Egypt, they ate unleavened bread, and from that time the Jews have allowed no leavening in the houses during Passover, bread being replaced by matzoth.

GOOD FRIDAY—April 3—This day commemorates the Crucifixion, which is retold during services from the Gospel according to St. John. A feature in Roman Catholic churches is the Mass of the Presanctified: there is no Consecration, the Host having been consecrated the previous day. The eating of hot cross buns on this day is said to have started in England.

EASTER SUNDAY—April 5—Observed in all Christian churches, Easter is the principal feast of the ecclesiastical year, and commemorates the Resurrection of Jesus. It is celebrated on the first Sunday after the full moon which occurs on or next after March 21 and is therefore cele-

brated between March 22 and April 25 inclusive. This date was fixed by the Council of Nicaea in 325.

ASCENSION DAY—Thursday, May 14—Took place in the presence of His apostles 40 days after the Resurrection of Jesus. It is traditionally held to have occurred on Mount Olivet in Bethany.

FIRST DAY OF SHABUOTH (Hebrew Pentecost)—Wednesday, May 20 (Sivan 6)—This festival, sometimes called the Feast of Weeks, or of Harvest, or of the First Fruits, falls fifty days after Passover and originally celebrated the end of the seven-week grain harvesting season. In later tradition, it also celebrated the giving of the Law to Moses on Mt. Sinai, and both aspects have come down to the present.

PENTECOST (Whitsunday)—May 24—This day commemorates the descent of the Holy Ghost upon the Apostles fifty days after the Resurrection. The sermon by the Apostle Peter, which led to the baptism of 3000 who professed belief, originated the ceremonies that have since been followed. "Whitsunday" is believed to have come from "white Sunday" when, among the English, white robes were worn by those baptized on the day.

MEMORIAL DAY—Saturday, May 30—Also known as Decoration Day, Memorial Day is a legal holiday in all the northern states and in the territories, and is also observed by the armed forces. In 1868, General John A. Logan, Commander in Chief of the Grand Army of the Republic, issued an order designating the day as one in which the graves of soldiers would be decorated. The holiday was originally devoted to honoring the memory of those who fell in the Civil War, but is now also dedicated to the memory of the dead of all wars.

FLAG DAY—Sunday, June 14—This day commemorates the adoption by the Continental Congress on June 14, 1777, of the Stars and Stripes as the U. S. flag. Although it is a legal holiday only in Pennsylvania, President Truman, on Aug. 3, 1949, signed a bill requesting the President to call for its observance each year by proclamation.

INDEPENDENCE DAY—Saturday, July 4—The day of the adoption of the Declaration of Independence in 1776, celebrated in all states and territories. The observance began in the next year in Philadelphia.

LABOR DAY—Monday, Sept. 7—Observed the first Monday in September in all states and territories, Labor Day was first celebrated in New York in 1882 under the sponsorship of the Central Labor Union, following the suggestion of Peter J. McGuire, of the Knights of Labor, that the day be set aside in honor of labor.

FIRST DAY OF ROSH HASHANA (Jewish New Year)—Thursday, Sept. 10 (Tishri 1)—This day marks the beginning of the Jewish year 5714 and opens the Ten Days of Penitence, closing with Yom Kippur.

YOM KIPPUR (Day of Atonement)—Saturday, Sept. 19 (Tishri 10)—This day marks the end of the Ten Days of Penitence that began with Rosh Hashana and is the holiest day of the Jewish year. It is described in *Leviticus* as the "Sabbath of Sabbaths," and synagogue services begin the preceding sundown, resume the following morning, and continue through the day to sundown.

FIRST DAY OF SUKKOTH (Feast of Tabernacles)—Thursday, Sept. 24 (Tishri 15)—This festival, also known as the Feast of the Ingathering, originally celebrated the fruit harvest, and the name comes from the booths or tabernacles in which the Jews lived during the harvest, although one tradition traces it to the shelters used by the Jews in their wandering through the wilderness. During the festival, many Jews build small huts in their back yards or on the roofs of houses.

COLUMBUS DAY—Monday, Oct. 12—A legal holiday in many states, commemorating the discovery of America by Columbus in 1492. Quite likely the first celebration of Columbus Day was that organized in 1792 by the Society of St. Tammany, or Columbian Order, more widely known as Tammany Hall.

ELECTION DAY (in certain states)—Tuesday, Nov. 3—Since 1845, by Act of Congress, the first Tuesday after the first Monday in November is the date for choosing Presidential electors. State elections are also generally held on this day.

ARMISTICE DAY—Wednesday, Nov. 11—Commemorates the signing of the Armistice ending World War I in 1918. A Congressional resolution in 1926 directed the President to issue a proclamation annually for observance of the day. It is a legal holiday in many states and in others observance is asked by proclamation of the governors. As part of the day's observance, two minutes of silence are included in the ceremonies honoring the memories of the war dead. The most notable observance is at the Tomb of the Unknown Soldier in Arlington Cemetery, in Arlington, Va.

THANKSGIVING—Thursday, Nov. 26—Observed nationally on the fourth Thursday in November by Act of Congress (1941), the first such national proclamation having been issued by President Lincoln in 1863, on the urging of Mrs. Sarah J. Hale, editor of *Godey's Lady's Book*. Most Americans believe that the holiday dates back to the day of thanks ordered by Governor Bradford of Plymouth Colony in New England in 1621 but

scholars point out that days of thanks stem from ancient times.

FIRST SUNDAY IN ADVENT—Nov. 29—Advent is the season in which the faithful must prepare themselves for the advent of the Saviour on Christmas. The four Sundays before Christmas are marked by special church services.

FIRST DAY OF HANUKKAH (Festival of Lights)—Wednesday, Dec. 2 (Kislev 25)—This festival was instituted by Judas Macabaeus in 165 B.C. to celebrate the purification of the Temple of Jerusalem, which had been desecrated three years earlier by Antiochus Epiphanes, who set up a pagan altar and offered sacrifices to Zeus Olympius. In Jewish homes, a light is lighted the first night, and on each succeeding night of the eight-day festival, another is lighted.

CHRISTMAS (Feast of the Nativity)—Friday, Dec. 25—The most important and the most widely celebrated holiday of the Christian year, it is observed as the anniversary of the birth of Jesus. Christmas customs are centuries old. The mistletoe, for example, comes from the Druids, who, in hanging the mistletoe, hoped for peace and good fortune. Use of such plants as holly comes from the ancient belief that such plants blossomed at Christmas. Comparatively recent is the Christmas tree, first set up in Germany in the 17th century, and the use of candles on trees developed from the belief that candles appeared by miracle on the trees at Christmas. Colonial Manhattan Islanders introduced the name Santa Claus, a corruption of the Dutch name for the 4th-century Asia-Minor St. Nicholas.

Movable Holidays, 1953 to 1962

CHRISTIAN AND SECULAR

Year	Ash Wed.	Easter	Pentecost	Labor Day	Election Day	Thanksgiving	1st Sun. Advent
1953	Feb. 18	Apr. 5	May 24	Sept. 7	Nov. 3	Nov. 26	Nov. 29
1954	Mar. 3	Apr. 18	June 6	Sept. 6	Nov. 2	Nov. 25	Nov. 28
1955	Feb. 23	Apr. 10	May 29	Sept. 5	Nov. 8	Nov. 24	Nov. 27
1956	Feb. 15	Apr. 1	May 20	Sept. 3	Nov. 6	Nov. 22	Dec. 2
1957	Mar. 6	Apr. 21	June 9	Sept. 2	Nov. 5	Nov. 28	Dec. 1
1958	Feb. 19	Apr. 6	May 25	Sept. 1	Nov. 4	Nov. 27	Nov. 30
1959	Feb. 11	Mar. 29	May 17	Sept. 7	Nov. 3	Nov. 26	Nov. 29
1960	Mar. 2	Apr. 17	June 5	Sept. 5	Nov. 8	Nov. 24	Nov. 27
1961	Feb. 15	Apr. 2	May 21	Sept. 4	Nov. 7	Nov. 23	Dec. 3
1962	Mar. 7	Apr. 22	June 10	Sept. 3	Nov. 6	Nov. 22	Dec. 2

Shrove Tuesday: 1 day before Ash Wednesday.

Palm Sunday: 7 days before Easter.

Maundy Thursday: 3 days before Easter.

Good Friday: 2 days before Easter.

Holy Saturday: 1 day before Easter.

Ascension Day: 10 days before Pentecost.

Trinity Sunday: 7 days after Pentecost.

Corpus Christi: 11 days after Pentecost.

JEWISH

Year	Purim	1st day Passover	1st day Shabuoth	1st day Rosh Hashana	Yom Kippur	1st Day Sukkoth	Simhath Torah	1st Day Hanukkah
1953	Mar. 1	Mar. 31	May 20	Sept. 10	Sept. 19	Sept. 24	Oct. 2	Dec. 2
1954	Mar. 19	Apr. 18	June 7	Sept. 28	Oct. 7	Oct. 12	Oct. 20	Dec. 20
1955	Mar. 8	Apr. 7	May 27	Sept. 17	Sept. 26	Oct. 1	Oct. 9	Dec. 10
1956	Feb. 26	Mar. 27	May 16	Sept. 6	Sept. 15	Sept. 20	Sept. 28	Nov. 29
1957	Mar. 17	Apr. 16	June 5	Sept. 26	Oct. 5	Oct. 10	Oct. 18	Dec. 18
1958	Mar. 6	Apr. 5	May 25	Sept. 15	Sept. 24	Sept. 29	Oct. 7	Dec. 7
1959	Mar. 24	Apr. 23	June 12	Oct. 3	Oct. 12	Oct. 17	Oct. 25	Dec. 26
1960	Mar. 13	Apr. 12	June 1	Sept. 22	Oct. 1	Oct. 6	Oct. 14	Dec. 14
1961	Mar. 2	Apr. 1	May 21	Sept. 11	Sept. 20	Sept. 25	Oct. 2	Dec. 3
1962	Mar. 20	Apr. 14	June 8	Sept. 29	Oct. 8	Oct. 13	Oct. 20	Dec. 22

Length of Jewish holidays (O = Orthodox, C = Conservative, R = Reform):

Passover: O & C, 8 days (holy days: first 2 and last 2); R, 7 days (holy days: first and last).

Shabuoth: O & C, 2 days; R, 1 day.

Rosh Hashana: O & C, 2 days; R, 1 day.

Yom Kippur: All groups, 1 day.

Sukkoth: All groups, 7 days (holy days: O & C, first 2; R, first only). O & C observe two additional days: Shemini

Atzereth (Eighth Day of the Feast) and Simhath Torah (Rejoicing of the Law). R observes Shemini Atzereth but not Simhath Torah.

Hanukkah: All groups, 8 days.

NOTE: All holidays begin at sundown on the evening before the date given.

AWARDS



NOBEL PRIZES

The Nobel prizes are awarded under the will of Alfred Bernhard Nobel, Swedish chemist and engineer, who died in 1896. The interest of the fund is divided annually among the persons who have made the most outstanding contributions in the field of physics, chemistry, and physiology or medicine, who have produced the most distinguished literary work of an idealist tendency, and who have contributed most toward world peace.

The prizes for physics and chemistry are awarded by the Swedish Academy of Science in Stockholm, the one for physiology or medicine by the Caroline Medical Institute in Stockholm, that for literature by the academy in Stockholm, and that for peace by a committee of five elected by the Norwegian Storting. The distribution of prizes was begun on December 10, 1901, the anniversary of Nobel's death. The amount of each prize varies with the income from the fund and since 1936 has stood at approximately \$8,000.

Year	Literature	Peace
1901	René F. A. Sully Prudhomme (France)	Henri Dunant (Switzerland) and Frederick Passy (France)
1902	Theodor Mommsen (Germany)	Elie Ducommun and Albert Gobat (Switzerland)
1903	Björnstjerne Björnson (Norway)	Sir William R. Cremer (England)
1904	Frédéric Mistral (France) and José Echegaray (Spain)	Institut de Droit International (Belgium)
1905	Henryk Sienkiewicz (Poland)	Bertha von Suttner (Austria)
1906	Giosuè Carducci (Italy)	Theodore Roosevelt (U. S.)
1907	Rudyard Kipling (England)	Ernesto T. Moneta (Italy) and Louis Renault (France)
1908	Rudolf Eucken (Germany)	Klas P. Arnoldson (Sweden) and Frederik Bajer (Denmark)
1909	Selma Lagerlöf (Sweden)	Auguste M. F. Beernaert (Belgium) and Baron Paul H. B. B. d'Estournelles de Constant de Rebecque (France)
1910	Paul von Heyse (Germany)	The Bureau International Permanent de la Paix (Switzerland)
1911	Maurice Maeterlinck (Belgium)	Tobias M. C. Asser (Holland) and Alfred H. Fried (Austria)
1912	Gerhart Hauptmann (Germany)	Elihu Root (U. S.)
1913	Rabindranath Tagore (India)	Henri La Fontaine (Belgium)
1915	Romain Rolland (France)	No award
1916	Verner von Heidenstam (Sweden)	No award
1917	Karl Gjellerup (Denmark) and Henrik Pontoppidan (Denmark)	International Red Cross
1919	Carl Spitteler (Switzerland)	Woodrow Wilson (U. S.)
1920	Knut Hamsun (Norway)	Léon Bourgeois (France)
1921	Anatole France (France)	Karl H. Branting (Sweden) and Christian L. Lange (Norway)
1922	Jacinto Benavente (Spain)	Fridtjof Nansen (Norway)
1923	William B. Yeats (Ireland)	No award
1924	Wladyslaw Reymont (Poland)	No award
1925	George Bernard Shaw (England)	Sir Austen Chamberlain (England) and Charles G. Dawes (U. S.)
1926	Grazia Deledda (Italy)	Aristide Briand (France) and Gustav Stresemann (Germany)
1927	Henri Bergson (France)	Ferdinand Buisson (France) and Ludwig Quidde (Germany)
1928	Sigrid Undset (Norway)	No award
1929	Thomas Mann (Germany)	Frank B. Kellogg (U. S.)
1930	Sinclair Lewis (U. S.)	Lars O. J. Söderblom (Sweden)
1931	Erik A. Karlfeldt (Sweden)	Jane Addams (U. S.) and Nicholas M. Butler (U. S.)
1932	John Galsworthy (England)	No award
1933	Ivan G. Bunin (Russia)	Sir Norman Angell (England)
1934	Luigi Pirandello (Italy)	Arthur Henderson (England)
1935	No award	Carl von Ossietzky (Germany)
1936	Eugene O'Neill (U. S.)	Carlos de S. Lamas (Argentina)
1937	Roger Martin du Gard (France)	Lord Cecil of Chelwood (England)
1938	Pearl S. Buck (U. S.)	Office International Nansen pour les Réfugiés (Switzerland)
1939	Frans Eemil Sillanpää (Finland)	No award

Nobel Prizes—(cont.)

Year	Literature	Peace
1944	Johannes V. Jensen (Denmark)	International Red Cross
1945	Gabriela Mistral (Chile)	Cordell Hull (U. S.)
1946	Hermann Hesse (Switzerland)	Emily G. Balch and John R. Mott (U. S.)
1947	André Gide (France)	American Friends Service Committee (U. S.) and British Society of Friends' Service Council (England)
1948	Thomas Stearns Eliot (England)	No award
1949	William Faulkner (U. S.)	Lord John Boyd Orr (Scotland)
1950	Bertrand Russell (England)	Ralph J. Bunche (U. S.)
1951	Pär Lagerkvist (Sweden)	Léon Jouhaux (France)

Year	Physics	Chemistry	Medicine
1901	Wilhelm K. Roentgen, for discovery of Roentgen rays.	Jacobus H. van 't Hoff; laws of chemical dynamics and osmotic pressure in solutions.	Emil A. von Behring, for work on serum therapy against diphtheria.
1902	Hendrik A. Lorentz and Pieter Zeeman, for work on influence of magnetism upon radiation.	Emil Fischer, for experiments in sugar and purin groups of substances.	Sir Ronald Ross, for work on malaria.
1903	A. Henri Becquerel, work on discovery of spontaneous radioactivity. Pierre and Marie Curie, for investigation of phenomena of radiation.	Svante A. Arrhenius, for his electrolytic theory of dissociation.	Niels R. Finsen, for his treatment of lupus vulgaris, with concentrated light rays.
1904	John Strutt (Lord Rayleigh) for discovery of argon in investigating gas density.	Sir William Ramsay; discovery and determination of place of inert gaseous elements in air.	Ivan P. Pavlov, for work on the physiology of digestion.
1905	Philipp Lenard, for work with cathode rays.	Adolf von Baeyer, for work on organic dyes and hydroaromatic combinations.	Robert Koch, for work on tuberculosis.
1906	Joseph J. Thomson, for investigations on passage of electricity through gases.	Henri Moissan, for isolation of fluorine, and introduction of electric furnace.	Camillo Golgi and Santiago Ramón y Cajal, for work on structure of the nervous system.
1907	Albert A. Michelson, for spectroscopic and meteorologic investigations.	Eduard Buchner; discovery of cell-less fermentation and investigations in biological chem.	Charles L. A. Laveran, for work with protozoa in the generation of disease.
1908	Gabriel Lippmann, for method of reproducing colors by photography.	Ernest Rutherford, for investigations into disintegration of elements and chemistry of radioactive substances.	Paul Ehrlich and Élie Metchnikoff, for work on immunity.
1909	Guglielmo Marconi and Ferdinand Braun, for development of wireless.	Wilhelm Ostwald, for work on catalysis and investigations into principles governing chemical equilibrium and reaction rates.	Theodor Kocher, for work on the thyroid gland.
1910	Johannes D. van der Waals, for work with the equation of state for gases and liquids.	Otto Wallach, for work in the field of alicyclic compounds.	Albrecht Kossel, for achievements in the chemistry of the cell.
1911	Wilhelm Wien, for his laws governing the radiation of heat.	Marie Curie, for discovery of elements radium and polonium.	Allvar Gullstrand, for work on the dioptics of the eye.
1912	Gustaf Dalén, for discovery of automatic regulators used in lighting lighthouses and light buoys.	Victor Grignard, for reagent discovered by and named after him; and Paul Sabatier, for the methods of hydrogenating organic compounds.	Alexis Carrel, for work on vascular ligature and grafting of blood vessels and organs.

Year	Physics	Chemistry	Medicine
1913	H. Kamerlingh Onnes, for work leading to production of liquid helium.	Alfred Werner, for linking up atoms within the molecule.	Charles Richet, for work on anaphylaxy.
1914	Max von Laue, for discovery of defraction of Roentgen rays passing through crystals.	Theodore W. Richards, for determining atomic weight of many chemical elements.	Robert Bárány, for work on physiology and pathology of the vestibular system.
1915	W. H. Bragg and W. L. Bragg, for analysis of crystal structure by means of X rays.	Richard Willstätter, for research into coloring matter of plants, especially chlorophyll.	No award.
1917	Charles G. Barkla, discovery of Roentgen radiation of the elements.	No award.	No award.
1918	Max Planck, for discoveries in connection with quantum theory.	Fritz Haber, for synthetic production of ammonia.	No award.
1919	Johannes Stark, discovery of Doppler effect in Canal rays and decomposition of spectrum lines by electric fields.	No award.	Jules Bordet, for discoveries in connection with immunity.
1920	Charles E. Guillaume, for discoveries of anomalies in nickel steel alloys.	Walther Nernst, for work in thermochemistry.	August Krogh, discovery of regulation of capillaries' motor mechanism.
1921	Albert Einstein, for discovery of the law of the photoelectric effect.	Frederick Soddy, for investigations into origin and nature of isotopes.	No award.
1922	Niels Bohr, for investigations of structure of atoms and radiations emanating from them.	Francis W. Aston, for discovery of isotopes in nonradioactive elements and for discovery of the whole number rule.	In 1923 the 1922 prize was divided between Archibald V. Hill for discovery relating to heat-production in muscles; and Otto Meyerhof, for correlation between consumption of oxygen and production of lactic acid in muscles.
1923	Robert A. Millikan, work on elementary charge of electricity and photoelectric phenomena.	Fritz Pregl, for method of microanalysis of organic substances discovered by him.	Frederick G. Banting and John J. R. Macleod, for discovery of insulin.
1924	Karl M. G. Siegbahn, for investigations in X-ray spectroscopy.	No award.	Willem Einthoven, for discovering the mechanism of the electrocardiogram.
1925	James Franck and Gustav Hertz, for discovery of laws governing impact of electrons upon atoms.	In 1926 the 1925 prize was awarded to Richard Zsigmondy, for work on the heterogeneous nature of colloid solutions.	No award.
1926	Jean Perrin, for works on discontinuous structure of matter and discovery of the equilibrium of sedimentation.	The Svedberg, for work on disperse systems.	Johannes Fibiger, for discovery of the Spiroptera carcinoma.
1927	Arthur H. Compton, discovery of Compton phenomenon; and Charles T. R. Wilson, for method of perceiving paths taken by electrically charged particles.	In 1928 the 1927 prize was awarded to Heinrich Wieland, for investigations of bile acids and kindred substances.	Julius Wagner-Jauregg, for use of malaria inoculation in treatment of dementia paralytica.

Nobel Prizes—(cont.)

Year	Physics	Chemistry	Medicine
1928	In 1929 the 1928 prize was awarded to Owen W. Richardson, for work on the phenomenon of thermionics and discovery of the Richardson Law.	Adolf Windaus, for investigations on constitution of the sterols and their connection with vitamins.	Charles Nicolle, for work on typhus exanthematicus.
1929	Prince Louis Victor de Broglie, for discovery of the wave character of electrons.	Arthur Harden and Hans K. A. S. von Euler-Chelpin, for research of fermentation of sugars.	Christiaan Eijkman, for discovery of the antineuritic vitamins; and Sir Frederick G. Hopkins, for discovery of growth-promoting vitamins.
1930	Sir Chandrasekhara V. Raman, for work on diffusion of light and discovery of the Raman effect.	Hans Fischer, for work on coloring matter of blood and leaves and for his synthesis of hemin.	Karl Landsteiner, for discovery of human blood groups.
1931	No award.	Karl Bosch and Friedrich Bergius, for invention and development of chemical high-pressure methods.	Otto H. Warburg, for discovery of the character and mode of action of the respiratory ferment.
1932	In 1933 the prize for 1932 was awarded to Werner Heisenberg, for creation of the quantum mechanics.	Irving Langmuir, for work in realm of surface chemistry.	Sir Charles S. Sherrington and Edgar D. Adrian, for discoveries of the function of the neuron.
1933	Erwin Schrödinger and Paul A. M. Dirac, for discovery of new fertile forms of the atomic theory.	No award.	Thomas H. Morgan, for discoveries on hereditary function of the chromosomes.
1934	No award.	Harold C. Urey, for discovery of heavy hydrogen.	George H. Whipple, George R. Minot, and William P. Murphy, for discovery of liver therapy against anemias.
1935	James Chadwick, for discovery of the neutron.	Frédéric and Irène Joliot-Curie, for synthesis of new radioactive elements.	Hans Spemann, for discovery of the organizer-effect in embryonic development.
1936	Victor F. Hess, for discovery of cosmic radiation; and Carl D. Anderson, for discovery of the positron.	Peter J. W. Debye, for investigations on dipole moments and diffraction of X rays and electrons in gases.	Sir Henry H. Dale and Otto Loewi, for discoveries on chemical transmission of nerve impulses.
1937	Clinton J. Davisson and George P. Thomson, for discovery of diffraction of electrons by crystals.	Walter N. Haworth, for research on carbohydrates and vitamin C; and Paul Karrer, for work on carotenoids, flavins and vitamins A and B.	Albert Szent-Györgyi von Nagrapolt, for discoveries on biological combustion.
1938	Enrico Fermi, for identification of new radioactivity elements and discovery of nuclear reactions effected by slow neutrons.	Richard Kuhn, for carotenoid study and vitamin research (declined the prize).	Cornellie Heymans, for importance of sinus and aorta mechanisms in the regulation of respiration.

Year	Physics	Chemistry	Medicine
1939	Ernest Orlando Lawrence, for the development of the cyclotron.	Adolf Friedrich Johann Butenandt, for work on sexual hormones (declined the prize) and Leopold Ruzicka, work with polymylenes.	Gerhard Domagk, antibacterial effect of pron-tocilate.
1943	Otto Stern, for detection of magnetic momentum of protons.	George Hevesy De Heves, for work on use of isotopes as chemical indicators.	Henrik Dam, Edward A. Doisy for the discovery of the chemical nature of Vitamin K.
1944	Isidor Isaac Rabi, for work on magnetic movements of atomic particles.	Otto Hahn, for work on atomic fission.	Joseph Erlanger and Herbert Spencer Gasser, for work on functions of the nerve threads.
1945	Wolfgang Pauli, for work on atomic fissions.	Artturi Ilmari Virtanen, for research in the field of conservation of fodder.	Sir Alexander Fleming, Ernst Boris Chain, and Sir Howard Florey, for discovery of penicillin.
1946	Percy Williams Bridgman, studies and inventions in high-pressure physics.	James B. Sumner, crystallizing of enzymes.	Herman J. Muller, hereditary effects of X ray on genes.
1947	Sir Edward Appleton, for discovery of layer which reflects radio short waves in the ionosphere.	John H. Northrop and Wendell M. Stanley, preparing enzymes and virus proteins in pure form.	Carl F. and Gerty T. Cori, for work on animal starch metabolism; Bernardo A. Houssay, for hormone study of pituitary gland.
1948	Patrick M. S. Blackett, for improvement on Wilson chamber and for discoveries in cosmic radiation.	Arne Tiselius, for biochemical discoveries and isolation of mouse paralysis virus.	Paul Mueller, for discovery of insect-killing properties of DDT.
1949	Hideki Yukawa, for mathematical prediction, 14 years ago, of the meson.	William Francis Giaque, for research in thermodynamics, especially effects of low temperature.	Walter Rudolf Hess, for research on brain control of body; and Antonio Caetano de Abreu Freire Egas Moniz, for development of brain operation to treat mental disease.
1950	Cecil Frank Powell, for method of photographic study of atom nucleus, and for discoveries about mesons.	Otto Diels and Kurt Adler, for dien synthesis for artificial manufacture of odors and complicated compounds.	Philip S. Hench, Edward C. Kendall, and Tadeus Reichstein, for discoveries about hormones of adrenal cortex.
1951	Sir John Douglas Cockcroft and Ernest T. S. Walton, for pioneer work in 1932 on transmutation of atomic nuclei.	Glenn T. Seaborg and Edwin M. McMillan, for discovery of plutonium.	Max Theiler, for development of anti-yellow-fever vaccine.

(For 1952 Nobel Prize winners, see Nobel Prizes in Index.)

Flowers of the Month

January	Carnation	July	Larkspur
February	Violet	August	Gladiolus
March	Jonquil	September	Aster
April	Sweet pea	October	Pompon
May	Lily of the valley	November	Chrysanthemum
June	Rose	December	Poinsettia

The Hall of Fame

The Hall of Fame for Great Americans, established in 1900 on the campus of New York University, is an open-air colonnade containing busts of 80 of the 83 persons so far honored for national achievements. New names are voted on every five years by a committee of 100 men and women from all the states. To be elected to the Hall of Fame, an individual must have been dead more than 25 years (before 1922, the stipulation was 10 years), must have been a citizen of the U. S., and must receive three-fifths of the committee vote. Nominations may be made by any citizen. Last election, 1950.

Names	Elected	Names	Elected
John Adams (statesman)	1900	John Paul Jones (naval officer)	1925
John Quincy Adams (statesman)	1905	James Kent (jurist)	1900
Louis Agassiz (naturalist)	1915	Sidney Lanier (poet)	1945
Susan B. Anthony (reformer)	1950	Robert E. Lee (military officer)	1900
John James Audubon (naturalist)	1900	Abraham Lincoln (statesman)	1900
George Bancroft (historian)	1910	Henry W. Longfellow (poet)	1900
Henry Ward Beecher (clergyman)	1900	James Russell Lowell (poet)	1905
Alexander Graham Bell (inventor)	1950	Mary Lyon (educator)	1905
Daniel Boone (explorer)	1915	James Madison (statesman)	1905
Edwin Booth (actor)	1925	Horace Mann (educator)	1900
Phillips Brooks (clergyman)	1910	John Marshall (jurist)	1900
William Cullen Bryant (poet)	1910	Matthew F. Maury (oceanographer)	1930
William Ellery Channing (clergyman)	1900	Maria Mitchell (astronomer)	1905
Rufus Choate (lawyer)	1915	James Monroe (statesman)	1930
Henry Clay (statesman)	1900	Samuel F. B. Morse (inventor)	1900
Samuel L. Clemens (Mark Twain) (author)	1920	William T. G. Morton (dentist)	1920
Grover Cleveland (statesman)	1935	John Lothrop Motley (historian)	1910
James Fenimore Cooper (author)	1910	Simon Newcomb (astronomer)	1925
Peter Cooper (manufacturer)	1900	Thomas Paine (philosopher)	1945
Charlotte S. Cushman (actress)	1915	Alice Freeman Palmer (educator)	1920
James Buchanan Eads (engineer)	1920	Francis Parkman (historian)	1915
Jonathan Edwards (clergyman)	1900	George Peabody (merchant)	1900
Ralph Waldo Emerson (author)	1900	William Penn (colonizer)	1935
David G. Farragut (naval officer)	1900	Edgar Allan Poe (author)	1910
Stephen C. Foster (song composer)	1940	Walter Reed (surgeon)	1945
Benjamin Franklin (statesman)	1900	Theodore Roosevelt* (statesman)	1950
Robert Fulton (inventor)	1900	Augustus Saint-Gaudens (sculptor)	1920
Josiah Willard Gibbs* (physicist)	1950	William T. Sherman (army officer)	1905
William Crawford Gorgas (physician)	1950	Joseph Story (jurist)	1900
Ulysses S. Grant (statesman)	1900	Harriet Beecher Stowe (author)	1910
Asa Gray (botanist)	1900	Gilbert Charles Stuart (painter)	1900
Alexander Hamilton (statesman)	1915	Booker T. Washington (educator)	1945
Nathaniel Hawthorne (author)	1900	George Washington (statesman)	1900
Joseph Henry (physicist)	1915	Daniel Webster (statesman)	1900
Patrick Henry (statesman)	1920	J. A. McNeill Whistler (painter)	1930
Oliver Wendell Holmes (author)	1910	Walt Whitman (poet)	1930
Mark Hopkins (educator)	1915	Eli Whitney (inventor)	1900
Elias Howe (inventor)	1915	John Greenleaf Whittier (poet)	1905
Washington Irving (author)	1900	Emma Willard (educator)	1905
Andrew Jackson (statesman)	1910	Frances Elizabeth Willard (reformer)	1910
Thomas Jefferson (statesman)	1900	Roger Williams (clergyman)	1920
		Woodrow Wilson* (statesman)	1950

* Not yet represented by a bust. NOTE: In the 1950 election, the following persons received over 10 votes but did not receive the necessary two-thirds of the committee vote: Andrew Carnegie (industrialist), Dorothea Lynde Dix (reformer), Henry George (political economist), Thomas Jonathan (Stonewall) Jackson (military officer), Henry James (author), William James (psychologist), Henry David Thoreau (author), George Westinghouse (inventor), Wilbur Wright (inventor).

Pulitzer Prize Awards

Source: Columbia University, New York. (For years not listed, no award made.)

Pulitzer Prizes in Journalism

Meritorious Public Service

- 1918 *The New York Times*
- 1919 *Milwaukee Journal*
- 1921 *Boston Post*
- 1922 *The (N. Y.) World*
- 1923 *Memphis Commercial Appeal*
- 1924 *The (N. Y.) World*
- 1926 *The (Columbus, Ga.) Enquirer Sun*
- 1927 *Canton (Ohio) Daily News*
- 1928 *Indianapolis Times*
- 1929 *The (N. Y.) Evening World*
- 1931 *Atlanta Constitution*
- 1932 *Indianapolis News*
- 1933 *New York World-Telegram*
- 1934 *Medford (Oreg.) Mail Tribune*
- 1935 *The Sacramento Bee*
- 1936 *The Cedar Rapids (Iowa) Gazette*
- 1937 *St. Louis Post-Dispatch*
- 1938 *The Bismarck (N. Dak.) Tribune*
Special Bronze Plaque:
Edmonton (Alberta) Journal
- 1939 *The Miami Daily News*
- 1940 *Waterbury (Conn.) Republican and American*
- 1941 *St. Louis Post-Dispatch*
- 1942 *Los Angeles Times*
- 1943 *The (Omaha) World-Herald*
- 1944 *The New York Times*
- 1945 *The Detroit Free Press*
- 1946 *The Scranton (Pa.) Times*
- 1947 *The (Baltimore) Sun*
- 1948 *The St. Louis Post-Dispatch*
- 1949 *(Lincoln) Nebraska State Journal*
- 1950 *Chicago Daily News and The St. Louis Post-Dispatch*
- 1951 *The Miami Herald and The Brooklyn Eagle*
- 1952 *The St. Louis Post-Dispatch*

Editorial

- 1917 *New York Tribune*
- 1918 *The (Louisville, Ky.) Courier-Journal*
- 1920 *HARVEY E. NEWBRANCH ([Omaha] Evening World-Herald)*
- 1922 *FRANK M. O'BRIEN (The New York Herald)*
- 1923 *WILLIAM ALLEN WHITE (The Emporia [Kans.] Gazette)*
- 1924 *The Boston Herald*
Special prize: *FRANK I. COBB (The [N. Y.] World)*
- 1925 *Charleston (S. C.) News and Courier*
- 1926 *The New York Times (EDWARD M. KINGSBURY)*
- 1927 *The Boston Herald (F. LAURISTON BULLARD)*
- 1928 *GROVER CLEVELAND HALL (Montgomery [Ala.] Advertiser)*
- 1929 *LOUIS ISAAC JAFFE (Norfolk Virginian-Pilot)*
- 1931 *CHARLES S. RYCKMAN (Fremont [Nebr.] Tribune)*
- 1933 *The Kansas City (Mo.) Star*
- 1934 *E. P. CHASE (Atlantic [Iowa] News Telegraph)*

- 1936 *FELIX MORLEY (The Washington [D. C.] Post)*
GEORGE B. PARKER (The Scripps-Howard Newspapers)
- 1937 *JOHN W. OWENS (The [Baltimore] Sun)*
- 1938 *W. W. WAYMACK (The [Des Moines] Register and Tribune)*
- 1939 *RONALD G. CALLVERT (The [Portland] Oregonian)*
- 1940 *BART HOWARD (St. Louis Post-Dispatch)*
- 1941 *REUBEN MAURY ([N. Y.] Daily News)*
- 1942 *GEOFFREY PARSONS (New York Herald Tribune)*
- 1943 *FORREST W. SEYMOUR (The [Des Moines] Register and Tribune)*
- 1944 *The Kansas City (Mo.) Star (HENRY J. HASKELL)*
- 1945 *GEORGE W. POTTER (The Providence [R. I.] Journal-Bulletin)*
- 1946 *HODDING CARTER (The [Greenville, Miss.] Delta Democrat-Times)*
- 1947 *WILLIAM H. GRIMES (The [N. Y.] Wall Street Journal)*
- 1948 *VIRGINIUS DABNEY (Richmond Times-Dispatch)*
- 1949 *JOHN H. CRIDER (The Boston Herald)*
HERBERT ELLISTON (The Washington Post)
- 1950 *CARL M. SAUNDERS (Jackson [Mich.] Citizen Patriot)*
- 1951 *WILLIAM H. FITZPATRICK (The New Orleans States)*
- 1952 *LOUIS LACOSS (St. Louis Globe-Democrat)*

Correspondence

- 1929 *PAUL SCOTT MOWBRER (Chicago Daily News)*
- 1930 *LELAND STOWE (New York Herald Tribune)*
- 1931 *H. R. KNICKERBOCKER (Philadelphia Public Ledger and New York Evening Post)*
- 1932 *WALTER DURANTY (The New York Times)*
CHARLES G. ROSS (St. Louis Post-Dispatch)
- 1933 *EDGAR ANSEL MOWBRER (Chicago Daily News)*
- 1934 *FREDERICK T. BIRCHALL (The New York Times)*
- 1935 *ARTHUR KROCK (The New York Times)*
- 1936 *WILFRED C. BARBER (The Chicago Tribune)*
- 1937 *ANNE O'HARE MCCORMICK (The New York Times)*
- 1938 *ARTHUR KROCK (The New York Times)*
- 1939 *LOUIS P. LOCHNER (The Associated Press)*
- 1940 *OTTO D. TOLISCHUS (The New York Times)*
- 1941 *Group award**
- 1942 *CARLOS P. ROMULO (The [Manilla] Philippines Herald)*

- 1943 HANSON W. BALDWIN (*The New York Times*)
 1944 ERNIE PYLE (Scripps-Howard Newspaper Alliance)
 1945 HAROLD V. (HAL) BOYLE (The Associated Press)
 1946 ARNALDO CORTESI (*New York Times*)
 1947 BROOKS ATKINSON (*New York Times*)
 1948 Discontinued

* In place of an individual Pulitzer Prize for foreign correspondence, the Trustees approved the recommendation of the Advisory Board that a bronze plaque or scroll be designed and executed to recognize and symbolize the public services and the individual achievements of American news reporters in the war zones of Europe, Asia and Africa from the beginning of the war.

Cartoon

- 1922 ROLLIN KIRBY (*The [N. Y.] World*)
 1924 JAY NORWOOD DARLING (*New York Tribune*)
 1925 ROLLIN KIRBY (*The [N. Y.] World*)
 1926 D. R. FITZPATRICK (*St. Louis Post-Dispatch*)
 1927 NELSON HARDING (*Brooklyn Daily Eagle*)
 1928 NELSON HARDING (*Brooklyn Daily Eagle*)
 1929 ROLLIN KIRBY (*The [N. Y.] World*)
 1930 CHARLES R. MACAULEY (*Brooklyn Daily Eagle*)
 1931 EDMUND DUFFY (*The [Baltimore] Sun*)
 1932 JOHN T. McCUTCHEON (*The Chicago Tribune*)
 1933 HAROLD MORTON TALBURT (*Washington Daily News*)
 1934 EDMUND DUFFY (*The [Baltimore] Sun*)
 1935 ROSS A. LEWIS (*Milwaukee Journal*)
 1937 CLARENCE DANIEL BATCHELOR ([N. Y.] *Daily News*)
 1938 VAUGHN SHOEMAKER (*Chicago Daily News*)
 1939 CHARLES G. WERNER (*The [Oklahoma City] Daily Oklahoman*)
 1940 EDMUND DUFFY (*The [Baltimore] Sun*)
 1941 JACOB BURCK (*The [Chicago] Times*)
 1942 HERBERT LAWRENCE BLOCK (NEA Service)
 1943 JAY NORWOOD DARLING (*New York Herald Tribune*)
 1944 CLIFFORD K. BERRYMAN (*The Washington [D. C.] Evening Star*)
 1945 BILL MAULDIN (United Feature Syndicate, Inc.)
 1946 BRUCE ALEXANDER RUSSELL (*Los Angeles Times*)
 1947 VAUGHN SHOEMAKER (*Chicago Daily News*)
 1948 RUBE GOLDBERG (*The [N. Y.] Sun*)
 1949 LUTE PEASE (*The Newark Evening News*)
 1950 JAMES T. BERRYMAN (*Washington [D. C.] Evening Star*)
 1951 REG (REGINALD W.) MANNING (*The [Phoenix] Arizona Republic*)
 1952 FRED L. PACKER (*The [N. Y.] Mirror*)

News Photography

- 1942 MILTON BROOKS (*The Detroit News*)
 1943 FRANK NOEL (The Associated Press)
 1944 FRANK FILAN (The Associated Press)
 EARLE L. BUNKER (*The [Omaha] World-Herald*)
 1945 JOE ROSENTHAL (The Associated Press)
 1947 ARNOLD HARDY
 1948 FRANK CUSHING (*Boston Traveler*)
 1949 NAT FEIN (*N. Y. Herald Tribune*)
 1950 BILL CROUCH (*Oakland [Calif.] Tribune*)
 1951 MAX DESFOR (The Associated Press)
 1952 JOHN ROBINSON and DON ULTANG (*Des Moines Register and Tribune*)

National Telegraphic Reporting

- 1942 LOUIS STARK (*The New York Times*)
 1944 DEWEY L. FLEMING (*The [Baltimore] Sun*)
 1945 JAMES B. RESTON (*The New York Times*)
 1946 EDWARD A. HARRIS (*St. Louis Post-Dispatch*)
 1947 EDWARD T. FOLLIARD (*The Washington [D. C.] Post*)

National Reporting

- 1948 BERT ANDREWS (*New York Herald Tribune*)
 NAT S. FINNEY (*The Minneapolis Tribune*)
 1949 C. P. TRUSSELL (*The N. Y. Times*)
 1950 EDWIN O. GUTHMAN (*Seattle Times*)
 1951 No award*
 1952 ANTHONY LEVIERO (*The N. Y. Times*)

* It was announced by Columbia University that the outstanding achievement in this field was the exclusive interview with President Truman by Arthur Krock of *The New York Times*. However, as Mr. Krock was a member of the advisory board which makes the award recommendations, no award was made.

International Telegraphic Reporting

- 1942 LAURENCE EDMUND ALLEN (The Associated Press)
 1943 IRA WOLFERT (North American Newspaper Alliance, Inc.)
 1944 DANIEL DE LUCE (The Associated Press)
 1945 MARK S. WATSON (*The [Baltimore] Sun*)
 1946 HOMER W. BIGART (*New York Herald Tribune*)
 1947 EDDY GILMORE (The Associated Press)

International Reporting

- 1948 PAUL W. WARD (*The [Baltimore] Sun*)
 1949 PRICE DAY (*The [Baltimore] Sun*)
 1950 EDMUND STEVENS (*Christian Science Monitor*)
 1951 KEYES BEECH and FRED SPARKS (*Chicago Daily News*); HOMER BIGART and MARGUERITE HIGGINS (*N.Y. Herald Tribune*); RELMAN MORIN and DON WHITEHEAD (The Associated Press)
 1952 JOHN M. HIGHTOWER (The Associated Press)

Reporting

- 1917 HERBERT BAYARD SWOPE (*The [N. Y.] World*)

- 1918 HAROLD A. LITLEDAL (New York Evening Post)
- 1920 JOHN J. LEARY, JR. (The [N. Y.] World)
- 1921 LOUIS SEIBOLD (The [N. Y.] World)
- 1922 KIRKE L. SIMPSON (The Associated Press)
- 1923 ALVA JOHNSTON (New York Times)
- 1924 MAGNER WHITE (San Diego Sun)
- 1925 JAMES W. MULROY and ALVIN H. GOLDSTEIN (Chicago Daily News)
- 1926 WILLIAM BURKE MILLER (The [Louisville, Ky.] Courier-Journal)
- 1927 JOHN T. ROGERS (St. Louis Post-Dispatch)
- 1929 PAUL Y. ANDERSON (St. Louis Post-Dispatch)
- 1930 RUSSELL D. OWEN (The New York Times)
- Special award: W. O. DAPPING (Auburn [N. Y.] Citizen)
- 1931 A. B. MACDONALD (The Kansas City [Mo.] Star)
- 1932 W. C. RICHARDS, D. D. MARTIN, J. S. POOLER, F. D. WEBB, J. N. W. SLOAN (all of The Detroit Free Press)
- 1933 FRANCIS A. JAMIESON (The Associated Press)
- 1934 ROYCE BRIER (San Francisco Chronicle)
- 1935 WILLIAM H. TAYLOR (New York Herald Tribune)
- 1936 LAUREN D. LYMAN (The New York Times)
- 1937 JOHN J. O'NEILL (New York Herald Tribune), WILLIAM LEONARD LAURENCE (The New York Times), HOWARD W. BLAKESLEE (The Associated Press), GOBIND BEHARI LAL (Universal Service), DAVID DIETZ (The Scripps-Howard Newspapers)
- 1938 RAYMOND SPRIGLE (Pittsburgh Post-Gazette)
- 1939 THOMAS L. STOKES (New York World-Telegram)
- 1940 S. BURTON HEATH (New York World-Telegram)
- 1941 WESTBROOK PEGLER (New York World-Telegram)
- 1942 STANTON DELAPLANE (San Francisco Chronicle)
- 1943 GEORGE WELLER (Chicago Daily News)
- 1944 PAUL SCHOENSTEIN and associates (New York Journal-American)
- 1945 JACK S. McDOWELL (The [San Francisco] Call-Bulletin)
- 1946 WILLIAM LEONARD LAURENCE (The New York Times)
- 1947 FREDERICK WOLTMAN (New York World-Telegram)
- Local Reporting
- 1948 GEORGE E. GOODWIN (The Atlanta Journal)
- 1949 MALCOLM JOHNSON (The [N. Y.] Sun)
- 1950 MEYER BERGER (The New York Times)
- 1951 EDWARD S. MONTGOMERY (The San Francisco Examiner)
- 1952 GEORGE DE CARVALHO (The San Francisco Chronicle)

Special Citation

- 1941 The New York Times for the public educational value of its foreign news report, exemplified by its scope, by excellence of writing and presentation, and supplementary background information, illustration, and interpretation.
- 1944 BYRON PRICE, Director of the Office of Censorship, for the creation and administration of the newspaper and radio codes.
- 1945 MRS. WILLIAM ALLEN WHITE, for her husband's interest and services during the past seven years as a member of the Advisory Board of the Graduate School of Journalism, Columbia University. The cartographers of the American press whose maps of the war fronts have helped notably to clarify and increase public information on the progress of the Armies and Navies.
- 1947 (Pulitzer centennial year.) Columbia University and the Graduate School of Journalism, for their efforts to maintain and advance the high standards governing the Pulitzer Prize awards. The St. Louis Post-Dispatch, for its unswerving adherence to the public and professional ideals of its founder and its constructive leadership in the field of American journalism.
- 1948 DR. FRANK D. FACKENTHAL, for his interest and service during the past years.
- 1951 CYRUS L. SULZBERGER (The New York Times) for his exclusive interview with Archbishop Stepinatz in a Yugoslav prison.
- 1952 The Kansas City Star for news coverage of 1951 floods in Kansas and northwestern Missouri.
- MAX KASE (New York Journal-American) for exposures of bribery and other corruption in college basketball.

History of Services Rendered Public by American Press in Preceding Year

- 1918 MINNA LEWISON and HENRY BEETLE HOUGH

Pulitzer Prizes in Letters

Novel

- 1918 His Family. By ERNEST POOLE
- 1919 The Magnificent Ambersons. By BOOTH TARKINGTON
- 1921 The Age of Innocence. By EDITH WHARTON
- 1922 Alice Adams. By BOOTH TARKINGTON
- 1923 One of Ours. By WILLA CATHER
- 1924 The Able McLaughlins. By MARGARET WILSON
- 1925 So Big. By EDNA FERBER
- 1926 Arrowsmith. By SINCLAIR LEWIS
- 1927 Early Autumn. By LOUIS BROMFIELD

- 1928 *The Bridge of San Luis Rey*. By THORNTON WILDER
 1929 *Scarlet Sister Mary*. By JULIA PETERKIN
 1930 *Laughing Boy*. By OLIVER LA FARGE
 1931 *Years of Grace*. By MARGARET AYER BARNES
 1932 *The Good Earth*. By PEARL S. BUCK
 1933 *The Store*. By T. S. STRIBLING
 1934 *Lamb in His Bosom*. By CAROLINE MILLER
 1935 *Now in November*. By JOSEPHINE WINSLOW JOHNSON
 1936 *Honey in the Horn*. By HAROLD L. DAVIS
 1937 *Gone With the Wind*. By MARGARET MITCHELL
 1938 *The Late George Apley*. By JOHN PHILLIPS MARQUAND
 1939 *The Yearling*. By MARJORIE KINNAN RAWLINGS
 1940 *The Grapes of Wrath*. By JOHN STEINBECK
 1942 *In This Our Life*. By ELLEN GLASGOW
 1943 *Dragon's Teeth*. By UPTON SINCLAIR
 1944 *Journey in the Dark*. By MARTIN FLAVIN
 1945 *A Bell for Adano*. By JOHN HERSEY
 1947 *All the King's Men*. By ROBERT PENN WARREN
 1948 *Tales of the South Pacific*. By JAMES A. MICHENER
 1949 *Guard of Honor*. By JAMES GOULD COZZENS
 1950 *The Way West*. By A. B. GUTHRIE, JR.
 1951 *The Town*. By CONRAD RICHTER
 1952 *The Caine Mutiny*. By HERMAN WOUR

Drama

- 1918 *Why Marry?* By JESSE LYNCH WILLIAMS
 1920 *Beyond the Horizon*. By EUGENE O'NEILL
 1921 *Miss Lulu Bett*. By ZONA GALE
 1922 *Anna Christie*. By EUGENE O'NEILL
 1923 *Icebound*. By OWEN DAVIS
 1924 *Hell-Bent Fer Heaven*. By HATCHER HUGHES
 1925 *They Knew What They Wanted*. By SIDNEY HOWARD
 1926 *Craig's Wife*. By GEORGE KELLY
 1927 *In Abraham's Bosom*. By PAUL GREEN
 1928 *Strange Interlude*. By EUGENE O'NEILL
 1929 *Street Scene*. By ELMER L. RICE
 1930 *The Green Pastures*. By MARC CONNELLY
 1931 *Alison's House*. By SUSAN GLASPELL
 1932 *Of Thee I Sing*. By GEORGE S. KAUFMAN, MORRIS RYSKIND & IRA GERSEWIN
 1933 *Both Your Houses*. By MAXWELL ANDERSON
 1934 *Men in White*. By SIDNEY KINGSLEY
 1935 *The Old Maid*. By ZOE AKINS
 1936 *Idiot's Delight*. By ROBERT E. SHERWOOD
 1937 *You Can't Take It With You*. By MOSS HART and GEORGE S. KAUFMAN
 1938 *Our Town*. By THORNTON WILDER

- 1939 *Abe Lincoln in Illinois*. By ROBERT E. SHERWOOD
 1940 *The Time of Your Life*. By WILLIAM SAROYAN
 1941 *There Shall Be No Night*. By ROBERT E. SHERWOOD
 1943 *The Skin of Our Teeth*. By THORNTON WILDER
 1945 *Harvey*. By MARY CHASE
 1946 *State of the Union*. By RUSSEL CROUSE and HOWARD LINDSAY
 1948 *A Streetcar Named Desire*. By TENNESSEE WILLIAMS
 1949 *Death of a Salesman*. By ARTHUR MILLER
 1950 *South Pacific*. By RICHARD RODGERS, OSCAR HAMMERSTEIN II, and JOSHUA LOGAN
 1952 *The Shrike*. By JOSEPH KRAMM
- United States History
- 1917 *With Americans of Past and Present Days*. By J. J. JUSSERAND, Ambassador of France to U. S.
 1918 *A History of the Civil War, 1861-1865*. By JAMES FORD RHODES
 1920 *The War with Mexico*. By JUSTIN H. SMITH
 1921 *The Victory at Sea*. By WILLIAM SOWDEN SIMS in collaboration with BURTON J. HENDRICK
 1922 *The Founding of New England*. By JAMES TRUSLOW ADAMS
 1923 *The Supreme Court in United States History*. By CHARLES WARREN
 1924 *The American Revolution—A Constitutional Interpretation*. By CHARLES HOWARD MCILWAIN
 1925 *A History of the American Frontier*. By FREDERIC L. FAXSON
 1926 *The History of the United States*. By EDWARD CHANNING
 1927 *Pinckney's Treaty*. By SAMUEL FLAGG BEMIS
 1928 *Main Currents in American Thought*, 2 vols. By VERNON LOUIS PARRINGTON
 1929 *The Organization and Administration of the Union Army, 1861-1865*. By FRED ALBERT SHANNON
 1930 *The War of Independence*. By CLAUDE H. VAN TYNE
 1931 *The Coming of the War: 1914*. By BERNADOTTE E. SCHMITT
 1932 *My Experiences in the World War*. By JOHN J. PERSHING
 1933 *The Significance of Sections in American History*. By FREDERICK J. TURNER
 1934 *The People's Choice*. By HERBERT AGAR
 1935 *The Colonial Period of American History*. By CHARLES MCLEAN ANDREWS
 1936 *The Constitutional History of the United States*. By ANDREW C. McLAUGHLIN
 1937 *The Flowering of New England*. By VAN WYCK BROOKS
 1938 *The Road to Reunion, 1865-1900*. By PAUL HERMAN BUCK
 1939 *A History of American Magazines*. By FRANK LUTHER MOTT

- 1940 *Abraham Lincoln: The War Years.* By CARL SANDBURG
- 1941 *The Atlantic Migration, 1607-1860.* By MARCUS LEE HANSEN
- 1942 *Reveille in Washington.* By MARGARET LEECH
- 1943 *Paul Revere and the World He Lived In.* By ESTHER FORBES
- 1944 *The Growth of American Thought.* By MERLE CURTI
- 1945 *Unfinished Business.* By STEPHEN BONSAI
- 1946 *The Age of Jackson.* By ARTHUR M. SCHLESINGER, JR.
- 1947 *Scientists Against Time.* By JAMES PHINNEY BAXTER, 3RD
- 1948 *Across the Wide Missouri.* By BERNARD DeVOTO
- 1949 *The Disruption of American Democracy.* By ROY FRANKLIN NICHOLS
- 1950 *Art and Life in America.* By OLIVER W. LARKIN
- 1951 *The Old Northwest, Pioneer Period 1815-1840, Vols. I and II.* By R. CARLYLE BULEY
- 1952 *The Uprooted.* By OSCAR HANDLIN
- 1940 *Woodrow Wilson. Life and Letters, Vols. VII and VIII.* By RAY STANNARD BAKER
- 1941 *Jonathan Edwards.* By OLA ELIZABETH WINSLOW
- 1942 *Crusader in Crinoline.* By FORREST WILSON
- 1943 *Admiral of the Ocean Sea.* By SAMUEL ELIOT MORISON
- 1944 *The American Leonardo: The Life of Samuel F. B. Morse.* By CARLTON MABEE
- 1945 *George Bancroft: Brahmin Rebel.* By RUSSEL BLAINE NYE
- 1946 *Son of the Wilderness.* By LINNIE MARSH WOLFE
- 1947 *The Autobiography of William Allen White*
- 1948 *Forgotten First Citizen: John Bigelow.* By MARGARET CLAPP
- 1949 *Roosevelt and Hopkins.* By ROBERT E. SHERWOOD
- 1950 *John Quincy Adams and the Foundations of American Foreign Policy.* By SAMUEL FLAGG BEMIS
- 1951 *John C. Calhoun: American Portrait.* By MARGARET LOUISE COIT
- 1952 *Charles Evans Hughes.* By MERLO J. PUSEY

Biography

- 1917 *Julia Ward Howe.* By LAURA E. RICHARDS and MAUDE HOWE ELLIOTT assisted by FLORENCE HOWE HALL
- 1918 *Benjamin Franklin, Self-Revealed.* By WILLIAM CABELL BRUCE
- 1919 *The Education of Henry Adams.* By HENRY ADAMS
- 1920 *The Life of John Marshall.* By ALBERT J. BEVERIDGE
- 1921 *The Americanization of Edward Bok.* By EDWARD BOK
- 1922 *A Daughter of the Middle Border.* By HAMLIN GARLAND
- 1923 *The Life and Letters of Walter H. Page.* By BURTON J. HENDRICK
- 1924 *From Immigrant to Inventor.* By MICHAEL IDVORSKY PUPIN
- 1925 *Barrett Wendell and His Letters.* By M. A. DEWOLFE HOWE
- 1926 *The Life of Sir William Osler.* By HARVEY CUSHING
- 1927 *Whitman.* By EMORY HOLLOWAY
- 1928 *The American Orchestra and Theodore Thomas.* By CHARLES EDWARD RUSSELL
- 1929 *The Training of an American. The Earlier Life and Letters of Walter H. Page.* By BURTON J. HENDRICK
- 1930 *The Raven.* By MARQUIS JAMES
- 1931 *Charles W. Eliot.* By HENRY JAMES
- 1932 *Theodore Roosevelt.* By HENRY F. PRINGLE
- 1933 *Grover Cleveland.* By ALLAN NEVINS
- 1934 *John Hay.* By TYLER DENNETT
- 1935 *R. E. Lee.* By DOUGLAS S. FREEMAN
- 1936 *The Thought and Character of William James.* By RALPH BARTON PERRY
- 1937 *Hamilton Fish.* By ALLAN NEVINS
- 1938 *Pedlar's Progress.* By ODELL SHEPARD
- 1939 *Andrew Jackson.* By MARQUIS JAMES
- 1939 *Benjamin Franklin.* By CARL VAN DOREN
- 1918* *Love Songs.* By SARA TEASDALE
- 1919* *Old Road to Paradise.* By MARGARET WIDEMER
- 1922 *Corn Huskers.* By CARL SANDBURG
- 1922 *Collected Poems.* By EDWIN ARLINGTON ROBINSON
- 1923 *The Ballad of the Harp-Weaver; A Few Fligs from Thistles; Eight Sonnets in American Poetry, 1922, A Miscellany.* By EDNA ST. VINCENT MILLAY
- 1924 *New Hampshire: A Poem with Notes and Grace Notes.* By ROBERT FROST
- 1925 *The Man Who Died Twice.* By EDWIN ARLINGTON ROBINSON
- 1926 *What's O'Clock.* By AMY LOWELL
- 1927 *Fiddler's Farewell.* By LEONORA SPEYER
- 1928 *Tristram.* By EDWIN ARLINGTON ROBINSON
- 1929 *John Brown's Body.* By STEPHEN VINCENT BENET
- 1930 *Selected Poems.* By CONRAD AIKEN
- 1931 *Collected Poems.* By ROBERT FROST
- 1932 *The Flowering Stone.* By GEORGE DILLON
- 1933 *Conquistador.* By ARCHIBALD MACLEISH
- 1934 *Collected Verse.* By ROBERT HILLYER
- 1935 *Bright Ambush.* By AUDREY WUDEMANN
- 1936 *Strange Holiness.* By ROBERT P. TRISTRAM COFFIN
- 1937 *A Further Range.* By ROBERT FROST
- 1938 *Cold Morning Sky.* By MARYA-ZATUR-ENSKA
- 1939 *Selected Poems.* By JOHN GOULD FLETCHER
- 1940 *Collected Poems.* By MARK VAN DOREN

Poetry

* Previous to the establishment of this prize in 1922, the 1918 and 1919 awards were made from gifts provided by the Poetry Society.

- 1941 *Sunderland Capture*. By LEONARD BACON
 1942 *The Dust Which Is God*. By WILLIAM ROSE BENÉT
 1943 *A Witness Tree*. By ROBERT FROST
 1944 *Western Star*. By STEPHEN VINCENT BENÉT
 1945 *V-Letter and Other Poems*. By KARL SHAPIRO
 1947 *Lord Weary's Castle*. By ROBERT LOWELL
 1948 *The Age of Anxiety*. By W. H. AUDEN
 1949 *Terror and Decorum*. By PETER VIERECK
 1950 *Annie Allen*. By GWENDOLYN BROOKS
 1951 *Complete Poems*. By CARL SANDBURG
 1952 *Collected Poems*. By MARIANNE MOORE

Music

- 1943 *Secular Cantata No. 2, A Free Song*. By WILLIAM SCHUMAN
 1944 *Symphony No. 4 (Op. 34)*. By HOWARD HANSON
 1945 *Appalachian Spring*. By AARON COPLAND
 1946 *The Canticle of the Sun*. By LEO SOWERBY
 1947 *Symphony No. 3*. By CHARLES IVES
 1948 *Symphony No. 3*. By WALTER PISTON
 1949 *Louisiana Story music*. By VIRGIL THOMSON
 1950 *The Consul*. By GIAN-CARLO MENOTTI
 1951 *Music for opera Giants in the Earth*. By DOUGLAS STUART MOORE
 1952 *Symphony Concertante*. By GAIL KUBICK

Special Award

- 1944 *Oklahoma!* By RICHARD RODGERS and OSCAR HAMMERSTEIN, 2ND

List of Academy Awards for Production, Acting, and Direction

Production

- Year
 1928 *Wings*, Paramount
 1929 *The Broadway Melody*, M-G-M
 1930 *All Quiet on the Western Front*, Universal
 1931 *Cimarron*, RKO Radio
 1932 *Grand Hotel*, M-G-M
 1933 *Cavalcade*, Fox
 1934 *It Happened One Night*, Columbia
 1935 *Mutiny on the Bounty*, M-G-M
 1936 *The Great Ziegfeld*, M-G-M
 1937 *The Life of Emile Zola*, Warner
 1938 *You Can't Take It With You*, Columbia
 1939 *Gone With the Wind*, Selznick-M-G-M
 1940 *Rebecca*, Selznick-UA
 1941 *How Green Was My Valley*, 20th Century-Fox
 1942 *Mrs. Miniver*, M-G-M
 1943 *Casablanca*, Warner Bros.
 1944 *Going My Way*, Paramount
 1945 *The Lost Weekend*, Paramount
 1946 *The Best Years of Our Lives*, Goldwyn-RKO Radio
 1947 *Gentleman's Agreement*, 20th Century-Fox
 1948 *Hamlet*, Rank-Two Cities-U-I
 1949 *All the King's Men*, Rossen-Columbia
 1950 *All About Eve*, 20th Century-Fox
 1951 *An American in Paris*, M-G-M

Actress and Movie

- 1928 Janet Gaynor, *Seventh Heaven*, *Street Angel*, *Sunrise*
 1929 Mary Pickford, *Coquette*
 1930 Norma Shearer, *The Divorcee*
 1931 Marie Dressler, *Min and Bill*
 1932 Helen Hayes, *The Sin of Madelon Claudet*
 1933 Katharine Hepburn, *Morning Glory*

Director and Movie

- Frank Borzage, *Seventh Heaven*;
 Lewis Milestone, *Two Arabian Nights*
 Frank Lloyd, *The Divine Lady*
 Lewis Milestone, *All Quiet on the Western Front*
 Norman Taurog, *Skippy*
 Frank Borzage, *Bad Girl*
 Frank Lloyd, *Cavalcade*
 Frank Capra, *It Happened One Night*
 John Ford, *The Informer*
 Frank Capra, *Mr. Deeds Goes to Town*
 Leo McCarey, *The Awful Truth*
 Frank Capra, *You Can't Take It With You*
 Victor Fleming, *Gone With the Wind*
 John Ford, *The Grapes of Wrath*
 John Ford, *How Green Was My Valley*
 William Wyler, *Mrs. Miniver*
 Michael Curtiz, *Casablanca*
 Leo McCarey, *Going My Way*
 Billy Wilder, *The Lost Weekend*
 William Wyler, *The Best Years of Our Lives*
 Elia Kazan, *Gentleman's Agreement*
 John Huston, *Treasure of Sierra Madre*
 Joseph L. Mankiewicz, *A Letter to Three Wives*
 Joseph L. Mankiewicz, *All About Eve*
 George Stevens, *A Place in the Sun*

Actor and Movie

- Emil Jannings, *The Way of All Flesh*, *The Last Command*
 Warner Baxter, *In Old Arizona*
 George Arliss, *Disraeli*
 Lionel Barrymore, *A Free Soul*
 Fredric March, *Dr. Jekyll and Mr. Hyde*;
 Wallace Beery, *The Champ*
 Charles Laughton, *The Private Life of Henry VIII*

Academy Awards—(cont.)

Actress and Movie

- 1934 Claudette Colbert, *It Happened One Night*
 1935 Bette Davis, *Dangerous*
 1936 Lulse Rainer, *The Great Ziegfeld*
 1937 Lulse Rainer, *The Good Earth*
 1938 Bette Davis, *Jezebel*
 1939 Vivien Leigh, *Gone With the Wind*
 1940 Ginger Rogers, *Kitty Foyle*
 1941 Joan Fontaine, *Suspicion*
 1942 Greer Garson, *Mrs. Miniver*
 1943 Jennifer Jones, *The Song of Bernadette*
 1944 Ingrid Bergman, *Gaslight*
 1945 Joan Crawford, *Mildred Pierce*
 1946 Olivia de Havilland, *To Each His Own*
 1947 Loretta Young, *The Farmer's Daughter*
 1948 Jane Wyman, *Johnny Belinda*
 1949 Olivia de Havilland, *The Heiress*
 1950 Judy Holliday, *Born Yesterday*
 1951 Vivien Leigh, *A Streetcar Named Desire*

Actress (supporting role)

- 1936 Gale Sondergaard, *Anthony Adverse*
 1937 Alice Brady, *In Old Chicago*
 1938 Fay Bainter, *Jezebel*
 1939 Hattie McDaniel, *Gone With the Wind*
 1940 Jane Darwell, *The Grapes of Wrath*
 1941 Mary Astor, *The Great Lie*
 1942 Teresa Wright, *Mrs. Miniver*
 1943 Katina Paxinou, *For Whom the Bell Tolls*
 1944 Ethel Barrymore, *None But the Lonely Heart*
 1945 Anne Revere, *National Velvet*
 1946 Anne Baxter, *The Razor's Edge*
 1947 Celeste Holm, *Gentleman's Agreement*
 1948 Claire Trevor, *Key Largo*
 1949 Mercedes McCambridge, *All the King's Men*
 1950 Josephine Hull, *Harvey*
 1951 Kim Hunter, *A Streetcar Named Desire*

Actor and Movie

- Clark Gable, *It Happened One Night*
 Victor McLaglen, *The Informer*
 Paul Muni, *The Story of Louis Pasteur*
 Spencer Tracy, *Captains Courageous*
 Spencer Tracy, *Boys Town*
 Robert Donat, *Goodbye, Mr. Chips*
 James Stewart, *The Philadelphia Story*
 Gary Cooper, *Sergeant York*
 James Cagney, *Yankee Doodle Dandy*
 Paul Lukas, *Watch on the Rhine*
 Bing Crosby, *Going My Way*
 Ray Milland, *The Lost Weekend*
 Fredric March, *The Best Years of Our Lives*
 Ronald Colman, *A Double Life*
 Sir Laurence Olivier, *Hamlet*
 Broderick Crawford, *All the King's Men*
 Jose Ferrer, *Cyrano de Bergerac*
 Humphrey Bogart, *The African Queen*

Actor (supporting role)

- Walter Brennan, *Come and Get It*
 Joseph Schildkraut, *The Life of Emile Zola*
 Walter Brennan, *Kentucky*
 Thomas Mitchell, *Stagecoach*
 Walter Brennan, *The Westerner*
 Donald Crisp, *How Green Was My Valley*
 Van Heflin, *Johnny Eager*
 Charles Coburn, *The More the Merrier*
 Barry Fitzgerald, *Going My Way*
 James Dunn, *A Tree Grows in Brooklyn*
 Harold Russell, *The Best Years of Our Lives*
 Edmund Gwenn, *Miracle on 34th Street*
 Walter Huston, *The Treasure of Sierra Madre*
 Dean Jagger, *Twelve O'Clock High*
 George Sanders, *All About Eve*
 Karl Malden, *A Streetcar Named Desire*

Poets Laureate of England

William D'Avenant	1633-1668
John Dryden	1670-1689
Thomas Shadwell	1689-1692
Nahum Tate	1692-1715
Nicholas Rowe	1715-1718
Laurence Eusden	1718-1730
Colley Cibber	1730-1757
William Whitehead	1757-1785

Thomas Warton	1785-1790
Henry James Pye	1790-1813
Robert Southey	1813-1843
William Wordsworth	1843-1850
Alfred Tennyson	1850-1892
Alfred Austin	1896-1913
Robert Bridges	1913-1930
John Masefield	1930-

NOTE: Originally, the title "poet laureate" was frequently given to eminent poets, sometimes by universities. More recently, the title has been applied to a poet appointed as an officer of the royal household to write court odes, etc., although nowadays there are no specific duties, the appointment being largely honorary. The poet laureate receives an annual stipend.

Although Ben Jonson is often considered the first poet laureate of England (1619-1637), the title was unofficial, and there had been other unofficial poets laureate before him. The title was first officially given to D'Avenant (or Davenant) on Dec. 13, 1638.

The laureateship was declined by Thomas Gray in 1757, William Mason in 1785, and Sir Walter Scott in 1813.

Other Academy Awards for 1951

- Art direction (black-and-white):** Richard Day, *A Streetcar Named Desire*.
- Art direction (color):** Cedric Gibbons and Preston Ames, *An American in Paris*.
- Cinematography (black-and-white):** William C. Mellor, *A Place in the Sun*.
- Cinematography (color):** Alfred Gilks, *An American in Paris*.
- Costume design (black-and-white):** Edith Head, *A Place in the Sun*.
- Costume design (color):** Orry Kelly, Walter Plunkett and Irene Sharaff, *An American in Paris*.
- Documentary (feature):** *Kon-Tiki*, Artfilm-RKO Radio.
- Documentary (short subjects):** *Benjy*, Paramount-Fred Zinnemann.
- Film editing:** William Hornbeck, *A Place in the Sun*.
- Foreign-language film (special award):** *Rashomon* (Japanese).
- Irving G. Thalberg Memorial Award:** Arthur Freed.
- Music (score of drama or comedy):** Franz Waxman, *A Place in the Sun*.
- Music (score of musical picture):** Johnny Green and Saul Chaplin, *An American in Paris*.
- Music (song):** "In the Cool, Cool, Cool of the Evening," from *Here Comes the Groom*, Hoagy Carmichael, Johnny Mercer.
- Set decoration (black-and-white):** George J. Hopkins, *A Streetcar Named Desire*.
- Set decoration (color):** Edwin B. Willis, Keogh Gleason, *An American in Paris*.
- Short subjects (cartoon):** *Two Mouseketeers*, M-G-M-Fred Quimby.
- Short subjects (1-reel):** *World of Kids*, Warner-Robert Youngson.
- Short subjects (2-reel):** *Nature's Half Acre*, Walt Disney-RKO.
- Sound recording:** M-G-M, *The Great Caruso*.
- Technical awards (class 2):** Gordon Jennings, S. L. Stancliffe and Paramount Special Photographic and Engineering Depts.; Olin L. Dupy, M-G-M.
- Technical awards (class 3):** Richard M. Haff, Frank P. Hernfeld, Garland C. Misener and Ansco Film Division of General Aniline and Film Corp.; Fred Ponedel, Ralph Ayres and George Brown of Warner Bros.; Glen Robinson and M-G-M Construction Dept.; Jack Gaylord and M-G-M Construction Dept.; Carlos Rivas, M-G-M.
- Writing (screenplay):** Michael Wilson and Harry Brown, *A Place in the Sun*.
- Writing (story and screenplay):** Alan Jay Lerner, *An American in Paris*.
- Writing (motion-picture story):** Paul Dehn and James Bernard, *Seven Days to Noon*.

New York Film Critics' Awards

(1—best motion picture; 2—best male performance; 3—best feminine performance; 4—best direction; 5—best foreign film; 6—special award.)

- | | |
|---|---|
| <p>1940 1. <i>The Grapes of Wrath</i>, 20th Cent.-Fox</p> <p>2. Charles Chaplin, * <i>The Great Dictator</i></p> <p>3. Katharine Hepburn, <i>The Philadelphia Story</i></p> <p>4. John Ford, <i>The Grapes of Wrath</i></p> <p>5. <i>The Baker's Wife</i> (French)</p> <p>1941 1. <i>Citizen Kane</i>, RKO-Mercury</p> <p>2. Gary Cooper, <i>Sergeant York</i></p> <p>3. Joan Fontaine, <i>Suspicion</i></p> <p>4. John Ford, <i>How Green Was My Valley</i></p> <p>1942 1. <i>In Which We Serve</i>, UA-Noel Coward</p> <p>2. James Cagney, <i>Yankee Doodle Dandy</i></p> <p>3. Agnes Moorehead, <i>The Magnificent Ambersons</i></p> <p>4. John Farrow, <i>Wake Island</i></p> <p>1943 1. <i>Watch on the Rhine</i>, Warner Bros.</p> <p>2. Paul Lukas, <i>Watch on the Rhine</i></p> <p>3. Ida Lupino, <i>The Hard Way</i></p> <p>4. George Stevens, <i>The More the Merrier</i></p> <p>1944 1. <i>Going My Way</i>, Paramount</p> <p>2. Barry Fitzgerald, <i>Going My Way</i></p> <p>3. Tallulah Bankhead, <i>Lifeboat</i></p> <p>4. Leo McCarey, <i>Going My Way</i></p> | <p>1945 1. <i>The Lost Weekend</i>, Paramount</p> <p>2. Ray Milland, <i>The Lost Weekend</i></p> <p>3. Ingrid Bergman, <i>Spellbound</i> and <i>The Bells of St. Mary's</i></p> <p>4. Billy Wilder, <i>The Lost Weekend</i></p> <p>5. (None)</p> <p>6. <i>The True Glory</i> and <i>The Fighting Lady</i></p> <p>1946 1. <i>The Best Years of Our Lives</i>, Goldwyn-RKO Radio</p> <p>2. Laurence Olivier, <i>Henry V</i></p> <p>3. Celia Johnson, <i>Brief Encounter</i></p> <p>4. William Wyler, <i>The Best Years of Our Lives</i></p> <p>5. <i>Open City</i> (Italian)</p> <p>1947 1. <i>Gentleman's Agreement</i>, 20th Century-Fox</p> <p>2. William Powell, <i>Life With Father</i></p> <p>3. Deborah Kerr, <i>The Adventuress</i> and <i>Black Narcissus</i></p> <p>4. Elia Kazan, <i>Gentleman's Agreement</i> and <i>Boomerang</i></p> <p>5. <i>To Live in Peace</i> (Italian)</p> <p>1948 1. <i>Treasure of Sierra Madre</i>, Warner Bros.</p> <p>2. Sir Laurence Olivier, <i>Hamlet</i></p> <p>3. Olivia de Havilland, <i>The Snake Pit</i></p> |
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* Reflected award.

4. John Huston, *Treasure of Sierra Madre*
 5. Paisan (Italian)
 1949 1. *All the King's Men*, Rossen-Columbia
 2. Broderick Crawford, *All the King's Men*
 3. Olivia de Havilland, *The Heiress*
 4. Carol Reed, *The Fallen Idol*
 5. *The Bicycle Thief* (Italian)
 1950 1. *All About Eve*, 20th Century-Fox
 2. Gregory Peck, *Twelve O'Clock High*
 3. Bette Davis, *All About Eve*
 4. Joseph L. Mankiewicz, *All About Eve*
 5. *Ways of Love* (Franco-Italian)
 1951 1. *A Streetcar Named Desire*, Warner Bros.
 2. Arthur Kennedy, *Bright Victory*
 3. Vivien Leigh, *A Streetcar Named Desire*
 4. Ella Kazan, *A Streetcar Named Desire*
 5. *Miracle in Milan* (Italian)

New York Drama Critics' Circle Awards

- 1935-36 *Winterset*, by Maxwell Anderson
 1936-37 *High Tor*, by Maxwell Anderson
 1937-38 *Of Mice and Men*, by John Steinbeck
Shadow and Substance, by Paul Vincent Carroll¹
 1938-39 (No award)
The White Steed, by Paul Vincent Carroll¹
 1939-40 *The Time of Your Life*, by William Saroyan
 1940-41 *Watch on the Rhine*, by Lillian Hellman
The Corn Is Green, by Emlyn Williams¹
 1941-42 (No award)
Blithe Spirit, by Noel Coward¹
 1942-43 *The Patriots*, by Sidney Kingsley
 1943-44 (No award)
Jacobowsky and the Colonel, by Franz Werfel-S. N. Behrman¹
 1944-45 *The Glass Menagerie*, by Tennessee Williams
 1945-46 (No award)
Carousel, by Rodgers and Hammerstein²
 1946-47 *All My Sons*, by Arthur Miller
No Exit, by Jean-Paul Sartre¹
Brigadoon, by Lerner and Loewe²
 1947-48 *A Streetcar Named Desire*, by Tennessee Williams
The Winslow Boy, by Terence Rattigan¹
 1948-49 *Death of a Salesman*, by Arthur Miller
The Madwoman of Chaillot, by Jean Giraudoux-Maurice Valency¹
South Pacific, by Rodgers, Hammerstein, and Joshua Logan²
 1949-50 *The Member of the Wedding*, by Carson McCullers
The Cocktail Party, by T. S. Eliot¹
The Consul, by Gian-Carlo Menotti³
 1950-51 *Darkness at Noon*, by Sidney Kingsley³
The Lady's Not for Burning, by Christopher Fry¹
Guys and Dolls, by Abe Burrows, Jo Swerling, and Frank Loesser²
 1951-52 *I Am a Camera*, by John Van Druten¹
Venus Observed, by Christopher Fry¹
Pal Joey, by Richard Rodgers, Lorenz Hart and John O'Hara²
Don Juan in Hell, by George Bernard Shaw³

¹ Citation for best foreign play. ² Citation for best musical. ³ Based on a novel by Arthur Koestler. ⁴ Based on Christopher Isherwood's *Berlin Stories*. ⁵ For "distinguished and original contribution to the theater."

Awards by Music Critics' Circle of New York

- 1941-42 *Symphony No. 3*, by William Schuman
 1942-43 *Symphony No. 1*, by Paul Creston
 1943-44 *Jeremiah Symphony*, by Leonard Bernstein
 1944-45 *Symphony No. 2*, by Walter Piston
 1945-46 *Concerto for Cello and Orchestra*, by Samuel Barber
 1946-47 *Symphony No. 3*, by Aaron Copland
Quartet No. 2, by Ernest Bloch¹
 1947-48 *Symphony No. 3*, by Wallingford Riegger
 1948-49 *Variation, Chaconne and Finale*, by Norman Dello Joio
 1949-50 *Symphony No. 2*, by Roger Sessions
String Quartet (1949), by Leon Kirchner¹
 1951² *Short Symphony*, by Howard Swanson³
Comedy on the Bridge, by Bohuslav Martinu⁴
"Spring" Symphony, by Benjamin Britten⁵
Judith, by William Schuman⁵

¹ Award for chamber music. ² Covered the period from Oct. 1950 through 1951. In this voting, works by European composers were open to consideration for the first time. No chamber-music award was made. In addition to the awards shown, a special award was given jointly to NBC and to Gian-Carlo Menotti for the television opera *Amici and the Night Visitors*. ³ Award for orchestral music. ⁴ Award for opera. ⁵ Award for choral music. ⁶ Award for music for the dance.

AVIATION



Famous Firsts in Aviation

THOUGH man succeeded in making powered flight only 45 years ago, his dreams of flying go back to mythology.

The principle of jet propulsion, for example, was understood and put into design form some 2,000 years ago by Hero, an Alexandrian philosopher. And as far back as A.D. 1232 Genghis Khan's son, Ogdaï, used rockets as a "secret weapon" in an attack on the Tartar city of Kalfeng. In 1480, Leonardo da Vinci drew sketches for what we now call helicopters.

Man's first aeronautical successes came in balloons.

1782—First balloon flight. Jacques and Joseph Montgolfier of Annonay, Fr., sent up a small smoke-filled balloon about mid-November.

1783—First hydrogen-filled balloon flight. Jacques A. C. Charles, Paris physicist, supervised construction by A. J. and M. N. Robert of a 13-ft. diameter balloon which was filled with hydrogen. It got up to about 3,000 ft. and traveled about 16 mi. in a 45-min. flight (Aug. 27).

1783—First human balloon flights. A Frenchman, Jean Pilâtre de Rozier, made the first captive balloon ascension (Oct. 15). With the Marquis d'Arlandes, Pilâtre de Rozier made the first free flight, reaching a peak altitude of about 500 ft., and traveling about 5½ mi. in 20 min. (Nov. 21).

1784—First powered balloon. Gen. Jean Baptiste Marie Meusnier developed the first propeller-driven and elliptically-shaped balloon—the crew cranking three propellers on a common shaft to give the craft a speed of about 3 mi. per hr.

1784—First woman to fly. Mme. Thibie, a French opera singer (June 4).

1793—First balloon flight in America. Jean Pierre Blanchard, a French pilot, made it from Philadelphia to near Woodbury, Gloucester Co., N. J., in a little over 45 min. (Jan. 9).

1794—First military use of the balloon. Jean Marie Coutelle, using a balloon built for the French Army, made two 4 hr. observation ascents. The military value of the ascents seems to have been in damage to the enemy's morale.

1797—First parachute jump. André-Jacques Garnerin dropped from about 6,500 ft. over Monceau Park in Paris in a 23-ft. diameter chute made of white canvas with a basket attached (Oct. 22).

1843—First air transport company. In London, William S. Henson and John Stringfellow filed articles of incorporation for the Aerial Transit Company (Mar. 24). It failed.

1852—First dirigible. Henri Giffard, a French engineer, flew in a controllable (more or less) steam engine-powered balloon, 144 ft. long and 39 ft. in diameter, inflated with 88,000 cu. ft. of coal gas. It reached 6.7 mi. per hr. on a flight from Paris to Trappe (Sept. 24).

1860—First aerial photographers. Samuel Archer King and William Black made two photos of Boston, still in existence.

1872—First gas-engine powered dirigible. Paul Hænenlein, a German engineer, flew in a semi-rigid frame dirigible, powered by a 4-cylinder internal combustion engine running on coal gas drawn from the supporting bag.

1873—First transatlantic attempt. *The New York Daily Graphic* sponsored the attempt with a 400,000 cu. ft. balloon carrying a lifeboat. A rip in the bag during inflation brought collapse of the balloon and the project.

1897—First successful metal dirigible. An all-metal dirigible, designed by David Schwarz, a Hungarian, took off from Berlin's Tempelhof Field and, powered by a 16-hp. Daimler engine, got several miles before leaking gas caused it to crash (Nov. 13).

1900—First Zeppelin flight. Germany's Count Ferdinand von Zeppelin flew the first of his long series of rigid-frame airships. It attained a speed of 18 mi. per hr. and got 3½ mi. before its steering gear failed (July 2).

1903—First successful heavier-than-air machine flight. Aviation was really born on the sand dunes at Kitty Hawk, N. C., when Orville Wright crawled to his prone position between the wings of the biplane he and his brother Wilbur had built, opened the throttle of their home-made 12-hp. engine and took to the air. He covered 120 ft. in 12 sec. Later that day, in one of four flights, Wilbur stayed up 59 sec. and covered 852 ft. (Dec. 17).

1904—First airplane maneuvers. Orville Wright made the first turn with an airplane (Sept. 15); 5 days later his brother Wilbur made the first complete circle.

1905—First airplane flight over half an hour. Orville Wright kept his craft up 33 min. 17 sec. (Oct. 4).

- 1906—First European airplane flight. Alberto Santos-Dumont, a Brazilian, flew a heavier-than-air machine at Bagatelle Field, Paris (Sept. 13).
- 1908—First airplane fatality. Lt. Thomas E. Selfridge, U. S. Army Signal Corps, was in a group of officers evaluating the Wright plane at Fort Myer, Va. He was up about 75 ft. with Orville Wright when the propeller hit a bracing wire and was broken, throwing the plane out of control, killing Selfridge and seriously injuring Wright (Sept. 17).
- 1910—First licensed woman pilot. Baroness Raymonde de la Roche of France, who learned to fly in 1909, received ticket No. 36 on March 8.
- 1910—First flight from shipboard. Eugene Ely took a Curtiss plane off from the deck of cruiser *Birmingham* at Hampton Roads, Va., and flew to Norfolk (Nov. 14). The following January he reversed the process, flying from Camp Selfridge to the deck of the battleship *Pennsylvania* in San Francisco Bay (Jan. 18).
- 1911—First U. S. woman pilot. Harriet Quimby, a magazine writer, who got ticket No. 37.
- 1913—First multi-engined aircraft. Built and flown by Igor Ivan Sikorsky while still in his native Russia.
- 1914—First aerial combat. In August, Allied and German pilots and observers started shooting at each other with pistols and rifles—with negligible results.
- 1915—First air raids on England. German Zeppelins started dropping bombs on four English communities (Jan. 19).
- 1918—First U. S. air squadron. The U. S. Army Air Corps made its first independent raids over enemy lines, in DH-4 planes (British-designed) powered with 400-hp. American-designed Liberty engines (Apr. 8).
- 1918—First regular airmail service. Operated for the Post Office Department by the Army, the first regular service was inaugurated with one round trip a day (except Sunday) between Washington, D. C., and New York City (May 15).
- 1919—First transatlantic flight. The NC-4, one of four Curtiss flying boats commanded by Lt. Comdr. Albert C. Read, reached Lisbon, Port. (May 27) after hops from Trepassy Bay, Nfd. to Horta, Azores (May 16-17), to Ponta Delgada (May 20). The Liberty-powered craft was piloted by Walter Hinton.
- 1919—First nonstop transatlantic flight. Capt. John Alcock and Lt. Arthur Whitten Brown, British World War I flyers, made the 1,900 mi. from St. John's, Nfd. to Clifden, Ire., in 16 hr. 12 min. in a Vickers-Vimy bomber with two 350-hp. Rolls-Royce engines (June 15-16).
- 1919—First lighter-than-air transatlantic flight. The British dirigible R-34, commanded by Maj. George H. Scott, left Firth of Forth, Scot. (July 2) and touched down at Mineola, L. I., 108 hr. later. The eastbound trip was made in 75 hr. (completed July 13).
- 1919—First scheduled passenger service (using airplanes). Aircraft Travel and Transport inaugurated London-Paris service (Aug. 25). Later the company started the first trans-channel mail service on the same route (Nov. 10).
- 1921—First naval vessel sunk by aircraft. Two battleships being scrapped by treaty were sunk by bombs dropped from Army planes in demonstration put on by Brig. Gen. William S. Mitchell (July 21).
- 1921—First helium balloon. The C-7, non-rigid Navy dirigible was first to use non-inflammable helium as lifting gas, making a flight from Hampton Roads, Va., to Washington, D. C. (Dec. 1).
- 1922—First member of Caterpillar Club. Lt. (later Maj. Gen.) Harold Harris bailed out of a crippled plane he was testing at McCook Field, Dayton, Ohio (Oct. 20), and became the first man to join the Caterpillar Club—those whose lives have been saved by parachute.
- 1923—First nonstop transcontinental flight. Lts. John A. Macready and Oakley Kelly flew a single-engine Fokker T-2 nonstop from New York to San Diego, a distance of just over 2,500 mi. in 26 hr. 50 min. (May 2-3).
- 1923—First autogyro flights. Juan de la Cierva, brilliant Spanish mathematician, made the first successful flight in a rotary wing aircraft in Madrid (June 9).
- 1924—First round-the-world flight. Four Douglas Cruiser biplanes of the U. S. Army Air Corps took off from Seattle under command of Maj. Frederick Martin (Apr. 6). 175 days later two of the planes (Lt. Lowell Smith's and Lt. Erik Nelson's) landed in Seattle after a circuitous route—one source saying 26,345 mi., another saying 27,553 mi.
- 1926—First polar flight. Then-Lt. Cmdr. Richard E. Byrd, acting as navigator, and Floyd Bennett as pilot, flew a trimotor Fokker from Kings Bay, Spitsbergen, over the North Pole and back in 15½-hr. flight (May 8-9).
- 1927—First solo transatlantic flight. Charles Augustus Lindbergh lifted his Wright-powered Ryan monoplane, *Spirit of St. Louis*, from Roosevelt Field, L. I., to stay aloft 33 hr. 39 min. and cover 3,600 mi. to Le Bourget Field outside Paris (May 20-21).
- 1927—First transatlantic passenger. Charles A. Levine was piloted by Clarence D. Chamberlin from Roosevelt Field, L. I., to Elsieben, Ger., in a Wright-powered Bellanca (June 4-5).

- 1928—First east-west transatlantic crossing. Baron Guenther von Huenefeld, piloted by German Capt. Hermann Koehli and Irish Capt. James Fitzmaurice, left Dublin for New York City (Apr. 12) in a single-engine all-metal Junkers monoplane. Some 37 hr. later they cracked up on Greenly Island, Labrador. Rescued.
- 1928—First U. S.-Australia flight. Sir Charles Kingsford-Smith and Capt. Charles T. P. Ulm, Australians, and two American navigators, Harry W. Lyon and James Warner, crossed the Pacific from Oakland to Brisbane. They went via Hawaii and the Fiji Islands in a trimotor Fokker (May 31-June 8).
- 1928—First trans-Arctic flight. Sir Hubert Wilkins, Australian explorer, piloted by Carl Ben Eielson, flew from Point Barrow, Alaska, to Spitsbergen (mid-April).
- 1929—First of the endurance records. With Air Corps Maj. Carl Spaatz in command and Capt. Ira Eaker as chief pilot, an Army Fokker, aided by refueling in the air, remained aloft 150 hr. 40 min. at Los Angeles (Jan. 1-7).
- 1929—First blind flight. James H. Doolittle proved the feasibility of instrument flying when he took off and landed entirely on instruments (Sept. 24).
- 1929—First rocket engine flight. Fritz von Opel, German auto maker, stayed aloft in his small rocket-powered craft for 75 sec., covering nearly 2 mi. (Sept. 30).
- 1929—First South Pole flight. Comdr. Richard E. Byrd, with Bernt Balchen as pilot, Harold I. June, radio operator, and Capt. A. C. McKinley, photographer, flew a trimotor Fokker from the Bay of Whales, Little America, over the South Pole and back (Nov. 28-29).
- 1930—First Paris-New York nonstop flight. Dieudonné Coste and Maurice Bellonte, French pilots, flew a Hispano-powered Breguet biplane from Le Bourget Field to Valley Stream, L. I., in 37 hr. 18 min. (Sept. 2-3).
- 1931—First flight into the stratosphere. Prof. Auguste Piccard, Swiss physicist, and Charles Knipfer, ascended in a balloon from Augsburg, Ger., and reached a height of 51,793 ft. in a 17-hr. flight that terminated on a glacier near Innsbruck, Austria (May 27).
- 1931—First nonstop transpacific flight. Hugh Herndon and Clyde Pangborn took off from Sabishiro Beach, Japan, dropped their landing gear and flew 4,860 mi. to near Wenatchee, Wash., in 41 hr. 13 min. (Oct. 4-5).
- 1932—First woman's transatlantic solo. Amelia Earhart, flying a Pratt & Whitney Wasp-powered Lockheed Vega, flew alone from Harbor Grace, Nfld., to Ireland in approximately 15 hr. (May 20-21).
- 1932—First westbound transatlantic solo. James A. Mollison, British pilot, took a de Havilland Puss Moth from Portmarnock, Ire., to Pennfield, N. B. (Aug. 18).
- 1932—First woman airline pilot. Ruth Rowland Nichols, first woman to hold three international records at the same time—speed, distance, altitude—was employed by N. Y.-New England Airways.
- 1933—First round-the-world solo. Wiley Post took a Lockheed Vega, *Winnie Mae*, 15,596 mi. around the world in 7 days 18 hr. 49½ min. (July 15-22).
- 1937—First successful helicopter. Hanna Reitsch, German woman pilot, flew Dr. Heinrich Focke's FW-61 in free, fully-controlled flight at Bremen (July 4).
- 1939—First turbojet flight. Just before their invasion of Poland, the Germans flew a Heinkel He-178 plane powered by a Heinkel S3B turbojet (Aug. 27).
- 1942—First American jet plane flight. Robert Stanley, chief pilot for Bell Aircraft Corp., flew the Bell XP-59 *Airacomet* at Muroc Army Base, Calif. (Oct. 1).
- 1947—First piloted supersonic flight in an airplane. Capt. Charles E. Yeager, U. S. Air Force, flew the X-1, rocket-powered research plane built by Bell Aircraft Corp., faster than the speed of sound at Muroc Air Force Base, Calif. (Oct. 14).
- 1949—First round-the-world nonstop flight. Capt. James Gallagher and USAF crew of 13 flew a Boeing B-50A Superfortress around the world nonstop from Ft. Worth, Tex., returning to same point; 23,452 mi. in 94 hr. 1 min., with 4 aerial refuelings enroute (Feb. 27-Mar. 2).
- 1950—First nonstop transatlantic jet flight. Col. David C. Schilling (USAF) flew 3,300 mi. from England to Limestone, Maine, in 10 hr. 1 min. (Sept. 22).
- 1950—First jet-plane battle. Four U. N. jets attacked by 8 to 12 Communist jets near Sinuiju, Korea. One enemy jet reported shot down and another damaged; no U. N. losses (Nov. 8).

A Few Current Aviation Terms

Athodyd—a form of ramjet, the term coming from Aero-Thermo-Dynamic Duct.

Axial flow compressor—one that compresses air in a flow parallel to the axis of rotation through a series (or multiple stages) of compressor blades.

Centrifugal compressor—one that compresses air in a direction tangential to the rotating member (or impeller), sometimes likened to a cream separator set on its side.

Critical speed—that at which compressibility effects begin to be encountered. Most propeller-driven aircraft don't reach critical speed in level flight (because of lack of power) but can hit it in dives. Many jet-propelled planes, however, can reach it in level flight.

Supersonic speed—that which is faster than the speed of sound.

International Airplane Records

Source: National Aeronautic Association.

(over 3-kilometer—1.864 mi. course)

Speed (mph)	Date	Type plane	Pilot	Place
266.583	Nov. 4, '23		Lt. Williams (U.S.A.)	Mineola
278.480	Dec. 11, '24		Adj. Bonnet (France)	Istres
294.380	Sept. 3, '32		Maj. J. H. Doolittle (U. S. A.)	Cleveland
304.980	Sept. 4, '33	Wedell-Williams	James R. Wedell (U.S.A.)	Chicago
314.320	Dec. 25, '34		Raymond Delmotte (France)	Istres
352.388	Sept. 13, '35	Hughes	Howard Hughes (U.S.A.)	Santa Anna
379.626	Nov. 11, '37		Herman Wunster (Germany)	Augsburg
469.220	Apr. 26, '39		Fritz Wendell (Germany)	Augsburg
606.255	Nov. 7, '45	Gloster Meteor IV	Gp. Capt. H. Wilson (Gr. Britain)	Herne Bay
616.	Sept. 7, '46	Gloster Meteor Jet propelled	Gp. Capt. E. M. Donaldson (Gr. Britain)	Sussex Coast
623.738	June 19, '47	Lockheed P-80R	Col. Albert Boyd (U.S.A.)	Muroc AF, Calif.
640.7	Aug. 20, '47	Douglas D-558	Comdr. T. F. Caldwell, Jr. (U.S.A.)	Muroc AF, Calif.
650.6	Aug. 25, '47	Douglas D-558	Maj. Marion Carl, USMC (U.S.A.)	Muroc AF, Calif.
670.9	Sept. 15, '48	North American F-86A	Maj. R. L. Johnson (U.S.A.F.)	Muroc AF, Calif.

(Fastest U. S. transeontinental—Col. W. H. Council, Lockheed P-80, from Long Beach, Calif. to La Guardia Field, N. Y., 2,453.8 mi., in 4 hr., 13 min., 26 sec., average speed 580.9 mph.—Jan. 26, '46.) (This record unofficially broken by Maj. R. E. Schleich and Maj. J. W. Howell in Boeing XB-47, from Seattle, Wash., to Andrews Field, Md., 2,289 mi., in 3 hr. 46 min., average speed 607 mph., Feb. 8, 1949.)

Distance

Distance (mi.)	Date	Crew	From	To
3,352.91	Oct. 28-29, '26	Costes & Capt. Rignot (France)	Le Bourget	Jask
3,910.90	June 4-6, '27	Clarence D. Chamberlin, A. Levine (U.S.A.)	New York	Eisleben, Germany
4,466.57	July 3-5, '28	A. Ferrarin, Del Prete (Italy)	Rome	Touros
4,911.93	Sept. 27-29, '29	Costes & Bellonte (France)	Le Bourget	Moulant
5,011.35	July 28-30, '31	Russel N. Boardman, John Polando (U.S.A.)	New York	Istanbul
5,656.95	Aug. 5-7, '33	Rossi, Codos (France)	New York	Ryack
6,305.66	July 12-14, '37	Col. M. Gromov, Youmachev, Daniline (U.S.S.R.)	Moscow	San Jacinto, Calif.
7,158.44	Nov. 5-7, '38	Sqd. Ldr. R. Kellett (Gr. Britain)	Ismalia (Suez)	Darwin
7,916	Nov. 19-20, '45	Col. C. S. Irvine, pilot, Lt. Col. G. R. Stanley, copilot (U.S.A.)	Guam	Washington, D. C.
11,235.6	Sept. 29-Oct. 1, '46	Comdr. Thomas D. Davies, Comdrs. Eugene P. Ranklin, Walter S. Reid, Lt. Comdr. Ray A. Tabeling (U.S.A.)	Perth, Australia	Columbus, Ohio

(Longest light airplane distance and longest solo, international—William P. Odum, U. S. Beech Bonanza (185 hp.) from Honolulu, Hawaii to Teterboro, N. J., 4,967.24 mi., March 8-9, 1949.)

Distance (Closed Course)

Distance (mi.)	Date	Crew	Place
2,895.970	Aug. 3, '27	Edzard & Ristic (Germany)	Dessau
4,763.700	May 31—June 2, '28	Capt. Ferrarin & Del Prete (Italy)	Casal e del Paati
4,988.969	Dec. 15-17 '30	Costos & Codos (France)	Istres
5,088.275	May 31—June 2, '30	U. Maddalena & F. Cecconi (Italy)	Montecelio
6,444.881	June 7-10, '31	J. LeBrix & M. Doret (France)	Istres
6,587.442	Mar. 23-26, '32	Bossoutrot & Rossi (France)	Oran
7,239.588	May 13-15, '38	Comm. Fujita & Sgt. Maj. Takahashi (Japan)	Kisarazu
8,037.899	July 30—Aug. 1, '39	Angelo Tondi, Ferrucio Viquoli, pilots, Aldo Stagliano, mech. (Italy)	Rome
8,854.308	Aug. 1-3, '47	Lt. Col. O. F. Lassiter, pilot (U.S.) Capt. W. J. Valentine, copilot (U.S.)	United States

Altitude

Height (feet)	Date	Crew	Place
38,419	July 25, '37	Lt. C. C. Champlon (U.S.A.)	Washington
41,795	May 26, '29	Willi Neuenhofen (Germany)	Dessau
43,166	June 4, '30	Lt. Apollo Soucek (U.S.A.)	Washington
43,976	Sept. 16, '32	Capt. Cyril F. Uwins (Gr. Britain)	Filton, Bristol
44,819	Sept. 28, '33	G. Lemoine (France)	Villacoublay
47,352	April 11, '34	Com. Renato Donati (Italy)	Rome
49,994	Sept. 28, '36	Sqd. Ldr. S. R. D. Swain (Gr. Britain)	South Farnborough
53,937	June 30, '37	Fl. Lt. M. J. Adam (Britain)	Farnborough
56,046	Oct. 22, '38	Col. Mario Pezzi (Italy)	Montecelio
59,445*	Mar. 23, '48	John Cunningham (Gr. Britain)	England

* Jet-propelled aircraft.

Absolute Altitude—72,394.795 ft. Capts. Orvil Anderson & Albert Stevens, U. S., Nov. 11, 1935 from Rapid City, S. D., in balloon. U. S. Airplane Record—47,910 ft. Maj. F. F. Ross, pilot, Lt. D. M. Davis, copilot, Lts. L. B. Barrier, C. B. Webster, F/O P. Morrisetti, Sgt. W. S. George, Harmon Field, Guam, May 15, 1946, Boeing B-29.

Helicopter Records

Source: National Aeronautic Association.

DISTANCE, AIRLINE

International and U. S.: 703.6 miles
Maj. F. T. Caschman, pilot, Maj. W. E. Zins, copilot, (US), Sikorsky R-5, powered by 450-hp. Pratt & Whitney, from Dayton, O. to Logan Field, Boston, Mass. May 22, '46.

DISTANCE, CLOSED CIRCUIT

International and U. S.: 621.369 miles
Maj. D. H. Jensen & Maj. W. C. Dodds, (US), Sikorsky R-5A, powered by 450-hp. Pratt & Whitney, Dayton, O. Nov. 14, '46.

ALTITUDE

International and U. S.: 21,220 feet
Capt. H. D. Gaddis (US), Sikorsky S-52-1, powered by 245 hp. Franklin; Bridgeport, Conn., May 21, 1949.

MAXIMUM SPEED

International and U. S.: 129.552 mph.
Harold E. Thompson (US), Sikorsky S-52-1, powered by 245 hp. Franklin; Cleveland, Ohio, April 27, 1949.

SPEED FOR 100 K.M. (CLOSED COURSE)

International and U. S.: 122.749 mph.
Harold E. Thompson (US), Sikorsky S-52-1, powered by 245 hp. Franklin; Milford, Conn., May 6, 1949.

SPEED FOR 1,000 KILOMETERS IN A CLOSED CIRCUIT (625 MILES)

International and U. S.: 107.251 km. ph. (66.642 mph.)
Maj. D. H. Jensen & Maj. W. C. Dodds, (US), Sikorsky R-5A, powered by 450-hp. Pratt & Whitney, Dayton, O., Nov. 14, '46.

Certificated U. S. Airplane Pilots

Source: Civil Aeronautics Administration.

Year	Total	Airline transport	Commercial	Private
1938.....	22,983	1,159	7,839	13,985
1939.....	33,706	1,197	11,677	20,832
1940.....	69,829	1,431	18,791	49,607
1941.....	129,947	1,587	34,578	93,782
1942.....	166,626	2,177	55,760	108,689
1943.....	173,206	2,315	63,940	106,951
1944.....	183,383	3,046	68,449	111,888
1945.....	296,895	5,815	162,873	128,207
1946.....	400,061	7,654	203,251	189,156
1947.....	433,241 ¹	7,059 ¹	181,912 ¹	244,270 ¹
1948.....	491,306 ²	7,762 ²	176,845 ²	306,699 ²
1949.....	525,174	9,025	187,769	328,380
1951.....	580,574	10,813	197,000	371,861

¹ As of April 1, 1948. ² As of May 1, 1949. ³ Total active and inactive as of Dec. 31, 1951. NOTE: No figures available for 1950.

U. S. Scheduled Airlines, 1951

Source: Civil Aeronautics Administration.

Airline	Certificated route mileage	Revenue passenger miles, 1951
Domestic (Trunk)		
American.....	19,981	2,467,833,000
Braniff.....	4,831	267,566,000
Capital.....	7,372	604,239,000
Chicago & Southern.....	6,118	167,861,000
Colonial.....	1,378	61,981,000
Continental.....	4,250	106,210,000
Delta.....	7,578	401,856,000
Eastern.....	18,307	1,548,548,000
Inland.....	1,913	40,757,000
Mid-Continent.....	4,594	121,148,000
National.....	2,829	403,520,000
Northeast.....	2,833	87,506,000
Northwest.....	11,043	472,121,000
Trans World (TWA).....	15,773	1,512,407,000
United.....	15,806	1,730,950,000
Western.....	3,103	216,221,000
Total.....	127,709	10,210,724,000
Local Service (Feeder)		
All American.....	3,541	29,715,000
Bonanza.....	664	7,531,000
Central.....	1,361	4,590,000
Empire.....	754	8,620,000
Frontier.....	4,817	27,374,000
Helicopter (Chicago).....	305	.....
Helicopter (Los Angeles).....	401	.....
Lake Central.....	655	4,964,000
Mid-Continent.....	1,647	8,634,000
Mid-West.....	1,280	406,000
Ozark.....	2,406	8,025,000
Piedmont.....	1,991	44,089,000
Pioneer.....	1,997	42,105,000
Robinson.....	563	15,578,000
Southern.....	2,117	17,185,000
Southwest.....	1,272	26,333,000
Trans-Texas.....	2,219	17,377,000
West Coast.....	864	11,416,000
Wiggins, E. W.....	793	371,000
Wisconsin-Central.....	1,712	15,303,000
Total.....	31,359	289,616,000
International & Overseas		
American.....	1,550	86,381,000
Braniff.....	7,142	64,320,000
Caribbean.....	393	7,516,000
Chicago & Southern.....	3,270	31,660,000
Colonial.....	2,030	31,830,000
Eastern.....	917	81,664,000
Hawaiian.....	374	44,365,000
National.....	114	28,968,000
Northwest.....	14,984	130,120,000
Pan American.....	155,763	1,551,267,000
Panagra.....	10,640	125,747,000
Trans-Pacific.....	374	13,918,000
Trans World (TWA).....	28,023	362,722,000
United.....	2,898	104,352,000
UMCA.....	378	884,000
Total.....	228,850	2,665,714,000

Important American Aircraft Types (U. S. Air Force)

Source: U. S. Department of Defense.

Type	Manufacturer	Power plant ¹	Maximum take-off ratings	Span ft. in.	Length ft. in.	Height ft. in.	Weight ²	Speed	Crew
BOMBERS									
B-26A thru F	Douglas	2 R-2800 PW-79	2,000 hp.	70 0	50 8	18 5	40,000	370 top	3
B-29 & B-29A	Boeing	4 R-3350-79 ³	2,200 hp.	141 3	99 0	27 9	140,000	400 top	11
X & YB-35	Northrop	4 R-4360 P&W	3,000 hp.	172 0	53 0	20 0	213,000	400 appx.	9 ⁴
B-36D	Convair	6 R-4360-41 P&W ⁵	3,500 hp.	230 0	162 1	46 8	358,000	Over 435	16
B-45A & C	North American	4 J-47-GE-7 or -9 ⁶	5,200 lb.	89 0	75 3	25 2	110,000	550 class	4
XB-47, B-47A ⁷	Boeing	6 J-47-GE-11	5,200 lb.	116 0	196 8	27 11	185,000	600 class	3
B-50A & D	Boeing	4 R-4360-35 P&W	3,500 hp.	141 3	99 0	32 8	170,000	Over 400	11
XB-51	Martin	3 J-47-GE-13	5,200 lb.	55 0	80 0	20 0	.....	.....	2
YB-52	Boeing	8 J-57-P-3 P&W ⁸	.....	185 0	153 0	48 0	.....	.....	..
YB-60	Convair	8 J-57-P-3 P&W ⁹	.....	206 0	171 0	50 0	.....	.....	..
FIGHTERS									
F-51 D-H	North American	1 V-1650-9 Pck	1,335 hp. ⁹	37 0	33 3	13 7	12,000	470 appx.	1
F-80A, B, C	Lockheed	1 J-33-23 or -35 AL	5,200 lb.	38 9	34 5	11 3	16,000	600 class	1
F-82A thru H	North American	1 V-1710-143 AL	1,600 hp. ¹⁰	51 6	42 2	13 8	26,000	Over 450	2
		1 V-1710-145 AL	.....	.....	.....	.....	.....	.....	.....
F-84B thru E, G	Republic	1 Single jet ¹¹	.....	36 4	37 ¹² 2	12 ¹³ 8	17,000 ¹⁴	600 class	1
F-84F	Republic	1 J-65 Wr	7,200 lb.	33 7	43 3	14 4	25,000	Over 600	1
F-86A & E	North American	1 J-47-GE-13 ¹⁵	5,200 lb.	37 1	37 5	14 7	16,000	650 class	1
F-86D	North American	1 J-47-GE-17	5,200 lb.	37 1	41 8	15 0	18,000	650 class	1
XF-88A	McDonnell	2 J-34-WE-15	4,000 lb.	40 0	55 0	15 0	20,000	Very high	1
F-89A thru E	Northrop	2 J-35-A-21	5,000 lb.	56 2	53 4	17 7	40,000	600 class	2
XF-90	Lockheed	2 J-34-WE-11	4,000 lb.	40 0	56 2	15 8	30,000	Very high	1
XF-91	Republic	1 J-47-GE-1	5,200 lb.	31 3	43 3	18 1	30,000	Very high	1
		1 XLR-11-RM-9	(¹⁶)	.....	.....	.....	.....	.....	.....
TRANSPORTS									
C-45A-F	Beech	2 R-985-AN-1 or -3 P&W	450 hp.	47 6	34 2	9 3	8,800	225 top	2
C-46F	Curtiss	2 R-2800-75 P&W	2,000 hp.	108 0	76 3	21 7	55,000	250	4
C-47D	Douglas	2 R-1830-90D P&W	1,200 hp.	95 0	63 8	16 9	33,000	200	5
C-54G	Douglas	4 R-2000-9 P&W	1,450 hp.	117 6	93 5	27 6	82,500	300 top	3
C-74	Douglas	4 R-4360-49 P&W	3,250 hp. ¹⁷	173 3	124 2	43 9	165,000	Over 300	5 ¹⁸
C-82	Fairchild	R-2800-85 P&W	2,100 hp.	106 5	77 1	26 3	54,000	250 top ¹⁹	5
C-97A-C	Boeing	4 R-4360-35A P&W	3,250 hp.	141 3	110 4	38 3	153,000 ²⁰	Over 350	5 ²¹
XC-99	Convair	6 R-4360-41 P&W	3,250 hp.	230 0	182 6	57 11	310,000	300	5 ²²
C-119B & C	Fairchild	2 R-4360-20W P&W	3,250 hp.	109 4	86 6	26 8	74,000	Over 250	5
C-124A	Douglas	4 R-4360-20W P&W	3,250 hp.	173 4	127 1	48 4	210,000	Over 300	..
YC-125A, B	Northrop	3 R-1820-99 Wr	1,200 hp.	86 6	67 2	23 1	40,000	200 appx.	2
C-118A	Douglas	4 R-2800-52W P&W	2,100 hp.	117 6	106 10	28 8	103,000	360	5
HELICOPTERS									
H-5G, H	Sikorsky	1 R-985-AN-5 P&W	450 hp.	49 0	41 1	13 0	6,500	105	1
H-13B, C, D	Bell	1 O-335-3 ²³	178 hp.	35 2	41 2	9 1	2,500	100	1
XH-17	Hughes	2 J-35-GE modified	4,000 lb.	.. ..	.. ..	.. ..	.....	.....	..
H-21A	Plasecki	1 R-1820-103 Wr	1,425 hp.	44 0	54 5	15 0	14,000	Over 140	2

¹ AL—Allison; Con—Continental; GE—General Electric; Lye—Lycoming; Pck—Packard; P&W—Pratt & Whitney; WE—Western Electric; Wr—Wright. ² Approximate maximum take-off gross weight. ³ Or 81 Curtiss-Wright. ⁴ Plus 6 relief. ⁵ Or 4 J-47-GE-19, 5,200 lb. thrust. ⁶ Or 4 J-47-GE-13 or -15, 5,200 lb. thrust. ⁷ And 1st 87 B-47Bs; 88th B-47B and on have 6 J-47-GE-23, over 5,800 lb. thrust. ⁸ Turbojet engines. ⁹ 2,200 hp. with water injection. ¹⁰ 1,930 hp. wet. ¹¹ B model J-35-A-15, C&D J-35-A-13, both 4,000 lb. thrust; E model J-35-A-17, 5,000 lb. thrust; G model J-35-A-29, 5,600 lb. ¹² For B, C, D; for E&G, 38 ft. 5 in. ¹³ For B, C, D; for E&G, 12 ft. 6 in. ¹⁴ For B, C, D; for E&G, 18,000. ¹⁵ F-86F uses 1 J-47-GE-27, 5,800 lb. thrust. ¹⁶ Four 1,500 lb. units. ¹⁷ Dry; 3,500 hp. wet. ¹⁸ Plus 4 relief. ¹⁹ 170 mph. cruising. ²⁰ Normal; 175,000 maximum. ²¹ Models A&C; 7 for model B. ²² Plus 5 relief. ²³ For model B; C&D have O-335-5, 200 hp. Note: X before an aircraft type indicates Experimental; Y indicates Service test status.

Peacetime Production Record

Year	Military	Personal	Transport	Total
1946.....	1,669 ¹	34,568 ¹	433 ¹	36,670
1947.....	2,100 ¹	15,339 ¹	278 ¹	17,717
1948.....	(²)	7,039 ¹	263 ¹	(²)
1949.....	(²)	3,379 ¹	165 ¹	(²)
1950.....	(²)	3,391 ¹	129 ¹	(²)
1951.....	(²)	2,279 ¹	198 ¹	(²)

¹ Source: Census Bureau ² Source: Statistical Control Div. of Air Comptroller, Air Force. ³ Not for publication.

Important American Aircraft Types

Manufacturer ¹	Name or model no.	Seats	No. and make engine	Engine hp.	High speed	Cruising speed	Gross weight	Span ft.	Length ft.
Executive, Transport									
Beech A. Corp.	D-18S	4-10	2 P & W R-985	450	256	205	8,500	47 7	33 11½
Boeing Airplane Co.	Stratocruiser	57-92	4 P & W R-4360	3,500	351	312	142,500	141 3	110 4
Consolidated Vultee A. Corp.	240*	36-42	2 P & W R-2800	2,100	320	285	39,000	91 9	74 8
Consolidated	340*	46	2 P & W CB16	2,400	...	...	45,725	...	...
Douglas A. C.	DC-3	30	2 P & W S1C3G	1,050	257	211	25,200	95 0	64 5½
	DC-4	48-58	4 P & W R-2000	1,450	300	250	73,000	117 6	93 5
	DC-6	48-66	4 P & W R-2800	2,400	360	311	97,200	117 6	100 7
Douglas	DC-6B	47-88	4 P & W R-2800	2,400	...	...	107,000	...	...
Lockheed A. Corp.	Constellation	34-64	4 Wright R-3350	2,500	354	300	107,000	123 0	95 3
Lockheed	1049*	91	4 W 956 C18CA-1	2,700	...	...	120,000	...	...
G. L. Martin Co.	2-0-2	36-40	2 P & W R-2800	2,400	312	286	42,750	93 3½	71 4
Martin	404	52	2 P & W CB16	2,400	...	...	44,900	...	...
Personal									
Aeronca A. Corp.	Sedan	4	1 Continental	145	129	114	2,050	37 6	25 3
	Champion	2	1 Continental	90	110	100	1,300	35 2	21 6
Beech A. Corp.	Bonanza	4	1 Continental	185	184	170	2,650	32 10	25 2
Cessna A. C.	140	2	1 Continental	90	125+	105+	1,500	33 4	21 6
	170	4	1 Continental	145	140+	120+	2,200	36 0	25 0
Cessna	195	5	1 Jacobs	300	...	...	3,350	...	...
Engr. & Research Corp.	Ercoupe	2	1 Continental	85	120	110	1,400	30 0	20 9
Piper A. Corp.	Cub PA-11	2	1 Continental	90	112	100	1,220	35 3	22 4
	Clipper	4	1 Continental	115	125	112	1,650	29 3	20 1
	Piper-Stinson	4	1 Franklin	165	133	130	2,400	34 0	25 2
Piper	Super Cub	2	1 Continental ⁶	90	...	...	1,500	...	...
	Pacer	4	1 Lycoming	125	...	...	1,800	...	...
	Tri-Pacer	4	1 Lycoming	125	...	...	1,800	...	...
Ryan Aero. Co.	Navion	4	1 Continental	205	163	155	2,750	33 4½	27 3
Taylorcraft	Traveler	2	1 Continental	65	...	...	1,200	...	...
	Sportsman	2	1 Continental	85	...	...	1,280	...	...
Texas Engr. Mfg. Co.	Swift 125	2	1 Continental	125	150	140	1,710	29 2	20 11
	Silvaire 8F	2	1 Continental	90	128	115	1,400	35 0	20 0
	Silvaire Sedan	4	1 Continental	165	140+	130	2,280	38 0	23 6
Helicopters									
Bell A. Corp.	47-D	2	1 Franklin	178	92	85	2,200	35 2	41 2
Hiller A. Corp.	UH-12	3	1 Franklin	178	84*	...	2,247	...	...
Hiller	UH-12B	3	1 Franklin	200	...	...	...	...	...
Sikorsky A. Div.	S-51	4	1 P & W R-984	450	103	85	5,500	49 0	57 1
Sikorsky	S-52	2	1 Franklin	165	...	...	2,100	...	...
	S-55	9-12	1 P & W SH2	600	...	...	6,835	...	...

¹ A. C.—Aircraft Company; A. Corp.—Aircraft Corporation; A. Div.—Aircraft Division. * Never exceed speed.
² Convair-Liner. ³ Super Constellation. ⁴ Or 1 Lycoming (136 hp.).

America's Warplane Production Record

Source: Civil Aeronautics Administration.

Type	1940	1941	1942	1943	1944	1945	Total 1940-45
Total	6,019	19,433	47,836	85,898	96,318	47,714	303,218
Bombers	1,191	4,115	12,627	29,355	35,003	16,492	98,783
Fighters	1,685	4,416	10,769	23,988	38,873	21,696	101,427
Photographic and reconnaissance	121	727	1,468	734	259	531	3,840
Transport	290	532	1,984	7,012	9,834	4,629	24,281
Trainer	2,731	9,373	17,631	19,939	7,577	1,309	58,560
Other*	1	270	3,357	4,870	4,772	3,057	16,327

* Includes special purpose, rotary wing, and liaison aircraft.

THE UNITED NATIONS

by Marcus Duffield

SIXTH GENERAL ASSEMBLY

The sixth session of the U. N. General Assembly was held in Paris, beginning in Nov. 1951 and lasting until early Feb. 1952. Following are some of the main topics acted upon in this session:

1. Disarmament. A new 12-member U. N. Disarmament Commission was established, with the 11 nations on the Security Council as members, plus Canada. The commission was proposed by the U. S. with the backing of Britain and France.

The broad purpose was to study the reduction of both conventional armaments and the ultimate prohibition of atomic weapons. As a method of working toward that goal, the commission was instructed to strive for inventories of the existing armaments possessed by the big powers, and for a system of verifying such inventories by objective inspection teams. If such a system could be arrived at, the next step would be to convene a general disarmament conference which would place ceilings on the amount of armaments any nation could possess.

The new Disarmament Commission met at U. N. Headquarters during the spring. In May, the Western powers offered specific proposals regarding ceilings for armed forces. They suggested that Russia and Communist China should reduce their number of men under arms to 1½ million each, that the U. S. should reduce its men under arms to 1½ million, and that Britain and France together should maintain 1½ million. Thus a balance would be preserved between West and East.

This proposal was put forward as part of a general disarmament structure which would include control of navies and air forces and prohibition of atomic weapons—all backed by international inspection. In June, the Soviet Union rejected the Western proposals. The existing tension between East and West appeared to make any progress toward disarmament impossible.

2. Korea. The conduct of the warfare in Korea remained, of course, the major project of the U. N., although the U. S. carried the bulk of the burden. At the General Assembly, the Soviet Union called for a special meeting of the U. N. Security Council to consider the Korean truce negotiations. The U. S., however, looked with disfavor on this proposal, considering that it would stifle the truce talks then under way in Korea and would merely provide Russia with an additional propaganda

platform. The General Assembly turned down the Soviet demand for the special Council meeting.

Another echo of the Korean warfare came in the form of Soviet demands that Nationalist China be ousted from U. N. bodies and Communist China be seated instead. These oft-repeated Soviet demands were rejected.

3. Germany. For the first time since the war, Germans took part in a U. N. meeting on Dec. 8, 1951. Representatives from West Germany testified to the General Assembly that it would be possible to hold free elections in their part of divided Germany. Shortly afterward, representatives from Soviet-occupied East Germany testified that the holding of elections in their part was no concern of the U. N.

The topic came up because the Western powers asked the Assembly to set up a commission to survey all of Germany and ascertain whether free elections could be held with a view to establishing a unified, democratic government. Such a commission was established by the Assembly, but it was unable to accomplish its task because the Communists would not permit the commission members to enter East Germany.

THE SECURITY COUNCIL

Tunisia. Nationalist rioting broke out in the spring of 1952 in Tunisia, a French protectorate on the Mediterranean coast of Africa. The Nationalists demanded home rule for the present and independence in the future. In March, the French Resident General arrested Tunisia's Premier and three of his Cabinet members.

Tunisia's plea that it was being mistreated and deprived of freedom by France was presented to the Security Council in April by 11 Arab-Asian nations that had strong feelings against colonialism. France and Britain led the opposition to Council consideration of the Tunisia case. The U. S., not wishing to antagonize France, abstained from voting. The Council refused to take up the case. The delegate from Pakistan bitterly criticized the refusal, saying "the basis was laid for suppression of free discussion in the U. N."

Germ warfare. Russia called a Security Council meeting in June 1952 to present a resolution calling on all countries to ratify a 1925 Geneva protocol prohibiting bacteriological warfare. Russia, but not the U. S., had ratified the Geneva protocol. The Council, by virtue of 10 abstentions,

defeated Russia's resolution. The U. S. then offered a resolution for an International Red Cross investigation of the truth or falsity of Russia's charge of U. S. germ warfare in Korea. Ten Council members favored it, but Russia killed it with a veto.

SEVENTH GENERAL ASSEMBLY

The seventh Assembly session convened on Oct. 14, 1952, in the newly completed U. N. headquarters in New York City.

The subject of the warfare in Korea was uppermost in the minds of the delegates from 60 nations. On Oct. 8, Gen. Mark W. Clark, U. N. Supreme Commander, had suspended indefinitely the truce talks at Panmunjom. The deadlock arose because the Chinese and North Korean Communists insisted that the U. N. repatriate all the prisoners of war held by it. The U. N. refused to repatriate those who feared to return to Communist territory.

Secretary of State Acheson set forth general U. S. policy in his opening address.

"It is in Korea," he said, "that the whole structure of collective security is meeting its supreme test. It will stand or fall upon what we do there. . . . We shall fight on as long as it is necessary to stop the aggression and to restore peace and security to Korea." Foreign Minister Vishinsky, replying for Russia, denounced U. S. actions in Korea.

Another explosive topic was the renewed plea from Tunisia (now joined by Morocco) that France grant home rule to these two African protectorates. The plea was presented by an Asian-African bloc of U. N. member nations, now numbering 13, which insisted that the topic be debated. France, supported by Britain, insisted that the topic not be debated, contending that it was a domestic matter in which the U. N. had no right to intervene. By this time, U. S. policy had shifted: Acheson said the U. N. "would be derelict in its duty" if it failed to concern itself with the rate of evolution of colonial peoples toward self-government.

The 60 Members of the United Nations, Oct., 1952

Country	Signed U. N. Decla- ration ¹	Joined U. N. Organi- zation ²	League of Nations ³	Country	Signed U. N. Decla- ration ¹	Joined U. N. Organi- zation ²	League of Nations ⁴
Afghanistan.....	....	1946	1934-46	Iraq.....	1943	1945	1932-46
Argentina.....	1945	1945	1919-46	Israel.....	....	1949	.....
Australia.....	1942	1945	1920-46	Lebanon.....	1945	1945	.....
Belgium.....	1942	1945	1920-46	Liberia.....	1944	1945	1920-46
Bolivia.....	1943	1945	1920-46	Luxemburg.....	1942	1945	1920-46
Brazil.....	1943	1945	1920-28	Mexico.....	1942	1945	1931-46
Burma.....	....	1948	.....	Netherlands.....	1942	1945	1920-46
Byelorussian S.S.R. ⁴.....	....	1945	.....	New Zealand.....	1942	1945	1920-46
Canada.....	1942	1945	1920-46	Nicaragua.....	1942	1945	1920-38
Chile.....	1945	1945	1919-40	Norway.....	1942	1945	1920-46
China.....	1942	1945	1920-46	Pakistan.....	....	1947	.....
Colombia.....	1944	1945	1920-46	Panamá.....	1942	1945	1920-46
Costa Rica.....	1942	1945	1920-26	Paraguay.....	1945	1945	1920-37
Cuba.....	1942	1945	1920-46	Peru.....	1945	1945	1920-41
Czechoslovakia.....	1942	1945	1920-46	Philippines.....	1942	1945	.....
Denmark.....	....	1945	1920-46	Poland ⁵	1942	1945	1920-46
Dominican Republic.....	1942	1945	1924-46	Saudi Arabia.....	1945	1945	.....
Ecuador.....	1945	1945	1934-46	South Africa, U. of.....	1942	1945	1920-46
Egypt.....	1945	1945	1937-46	Sweden.....	....	1946	1920-46
El Salvador.....	1942	1945	1920-39	Syria.....	1945	1945	.....
Ethiopia.....	1943	1945	1923-46	Thailand.....	....	1946	1920-46
France.....	1945	1945	1920-46	Turkey.....	1945	1945	1932-46
Greece.....	1942	1945	1920-46	Ukrainian S.S.R. ⁴.....	....	1945	.....
Guatemala.....	1942	1945	1920-38	United Kingdom.....	1942	1945	1920-46
Haiti.....	1942	1945	1920-44	United States.....	1942	1945	.....
Honduras.....	1942	1945	1920-38	U.S.S.R. ⁴	1942	1945	1934-39
Iceland.....	....	1946	.....	Uruguay.....	1945	1945	1920-46
India.....	1942	1945	1920-46	Venezuela.....	1945	1945	1920-40
Indonesia.....	....	1950	.....	Yemen.....	....	1947	.....
Iran.....	1943	1945	1919-46	Yugoslavia.....	1942	1945	1920-46

¹ Declaration of United Nations was originally signed by 26 nations in Washington, D.C., on Jan. 1, 1942. ² U. N. officially came into existence Oct. 24, 1945. ³ League was formally dissolved Apr. 18, 1946. Nations withdrawing before that time did so voluntarily, except U.S.S.R., which was expelled. Other members of League were: Albania (1926-46), Austria (1920-40), Bulgaria (1920-46), Eire (1923-46), Estonia (1921-46), Finland (1920-46), Germany (1926-38), Hungary (1922-41), Italy (1920-39), Japan (1920-35), Latvia (1921-46), Lithuania (1921-46), Portugal (1920-46), Rumania (1920-42), Spain (1920-41), Switzerland (1920-46). ⁴ Admission as separate nation approved at San Francisco Conference. ⁵ Invited to attend San Francisco Conference June 5, 1945, after its liberation. ⁶ Not represented at San Francisco Conference, but subsequently signed Charter as original member.

Delegation Heads to the United Nations

Members Represented at Headquarters*

Afghanistan: Mohammed Kabir Ludin	Israel: Abba Eban
Argentina: Dr. Rodolfo Munoz (acting)	Lebanon: Dr. Karim Azkoul (acting)
Australia: W. D. Forsyth	Liberia: Richard S. S. Bright
Belgium: Fernand van Langenhove	Mexico: Dr. Luis Padilla Nervo
Bolivia: Dr. Eduardo Arze Quiroga	Netherlands: D. J. von Balluseck
Brazil: Joao Carlos Muniz	New Zealand: Leslie Knox Munro
Canada: D. M. Johnson	Nicaragua: Dr. Guillermo Sevilla-Sacasa
Chile: Hernán Santa Cruz	Norway: Hans Engen
China: Dr. Ting-Fu Tsiang	Pakistan: Prof. Ahmed S. Bokhari
Colombia: Dr. Eliseo Arango	Panamá: Eusebio A. Morales
Costa Rica: (vacant)	Paraguay: Dr. Osvaldo Chaves
Cuba: Dr. Emilio Nufiez-Portuondo	Peru: Carlos Holguin de Laval
Czechoslovakia: Jiri Nosek (acting)	Philippines: Brig. Gen. Carlos P. Romulo
Denmark: William Borberg	Poland: Henryk Birecki
Dominican Republic: Dr. Joaquin Salazar	Saudi Arabia: Sheikh Asad Al-Faqih
Ecuador: Dr. Antonio Quevedo	Sweden: Sven Grafström
Egypt: Mahmoud Fawzi Bey	Syria: Dr. Farid Zeineddine
El Salvador: Dr. Miguel Rafael Urquía	Thailand: Mom Chao Dilikrit Kridakon
France: Henri Hoppenot	Turkey: Selim Sarper
Greece: Alexis Kyrrou	Union of South Africa: G. P. Jooste
Guatemala: Dr. Eduardo Castillo-Arriola	U.S.S.R.: Yakov A. Malik
Haiti: Luc Fouché	United Kingdom: Sir Gladwyn Jebb
Honduras: Dr. Tiburcio Carías, Jr.	United States: Warren R. Austin
Iceland: Thor Thors	Uruguay: Prof. Enrique Rodríguez Fabregat
India: Rageshwar Dayal	Venezuela: Dr. César González
Indonesia: L. N. Palar	Yugoslavia: Dr. Ales Bebler
Iran: Dr. Ali Gholi Ardalan	
Iraq: Awni Khalid (acting)	

* Permanent representative to U. N.

Security Council*

Brazil: Joao Carlos Muniz	Pakistan: Prof. Ahmed S. Bokhari
Chile: Hernán Santa Cruz	Turkey: Selim Sarper
China: Dr. Ting-Fu Tsiang	U.S.S.R.: Yakov A. Malik
France: Henri Hoppenot	United Kingdom: Sir Gladwyn Jebb
Greece: Alexis Kyrrou	United States: Warren R. Austin
Netherlands: D. J. von Balluseck	

* As of 1952. See page 742 for nations elected in 1952.

Economic and Social Council*

Argentina: Dr. Rodolfo Munoz	Pakistan: S. Amjad Ali
Belgium: Raymond Scheyven	Philippines: Brig. Gen. Carlos P. Romulo
Canada: Jean Lesage	Poland: Henryk Birecki
China: C. L. Hsia	Sweden: Richard Sterner
Cuba: Dr. Emilio Nufiez-Portuondo	U.S.S.R.: G. P. Arkadiev
Czechoslovakia: Jiri Nosek	United Kingdom: Earl of Selkirk
Egypt: Mahmoud Fawzi Bey	United States: Isadore Lubin
France: Pierre Abelin	Uruguay: Prof. Enrique Rodríguez-Fabregat
Iran: Dr. Ali Gholi Ardalan	
Mexico: Dr. Luis Padilla Nervo	

* As of 14th session held in New York City, May 20 to Aug. 1, 1952. See page 742 for nations elected in 1952.

Trusteeship Council*

Australia: W. D. Forsyth	New Zealand: Leslie Knox Munro
Belgium: Pierre Ryckmans	Thailand: Mom Chao Dilikrit Kridakon
China: Dr. S. S. Liu	U.S.S.R.: Aleksander A. Soldatov
Dominican Republic: Dr. Joaquin E. Salazar	United Kingdom: Sir Alan Guthbert Burns
El Salvador: Dr. Miguel Rafael Urquía	United States: Benjamin Gerig (acting)
France: Leon Pignon	
Iraq: Awni Khalid	

* As of first half of 11th session held in New York City, June 3 to July 24, 1952. See page 742 for nations elected in 1952.

Nations Serving Terms on U. N. Councils

Security Council

Permanent members: China; France; United Kingdom; U. S.; U.S.S.R.
Jan. 1946-Dec. 1946: Egypt; Mexico; Netherlands.
Jan. 1946-Dec. 1947: Australia; Brazil; Poland.
Jan. 1947-Dec. 1948: Belgium; Colombia; Syria.
Jan. 1948-Dec. 1949: Argentina; Canada; Ukrainian S.S.R.
Jan. 1949-Dec. 1950: Cuba; Egypt; Norway.
Jan. 1950-Dec. 1951: Ecuador; India; Yugoslavia.
Jan. 1951-Dec. 1952: Brazil; Netherlands; Turkey.
Jan. 1952-Dec. 1953: Chile; Greece; Pakistan.
Jan. 1953-Dec. 1954: Colombia, Denmark, Lebanon.

Economic and Social Council

Jan. 1946-Dec. 1946: Colombia; Greece; Lebanon; Ukrainian S.S.R.; U. S.; Yugoslavia.
Jan. 1946-Dec. 1947: Cuba; Czechoslovakia; India; Norway; United Kingdom; U.S.S.R.
Jan. 1946-Dec. 1948: Belgium; Canada; Chile; China; France; Peru.
Jan. 1947-Dec. 1949: Byelorussian S.S.R.;

Lebanon; New Zealand; Turkey; U. S.; Venezuela.

Jan. 1948-Dec. 1950: Australia; Brazil; Denmark; Poland; United Kingdom; U.S.S.R.
Jan. 1949-Dec. 1951: Belgium; Chile; China; France; India; Peru.
Jan. 1950-Dec. 1952: Canada; Czechoslovakia; Iran; Mexico; Pakistan; U. S.
Jan. 1951-Dec. 1953: Philippines; Poland; Sweden; United Kingdom; Uruguay; U.S.S.R.
Jan. 1952-Dec. 1954: Argentina; Belgium; China; Cuba; France; Egypt.
Jan. 1953-Dec. 1955: Australia, India, Turkey, U. S., Venezuela, Yugoslavia.

Trusteeship Council

Permanent members: Australia*; Belgium*; China†; France*; New Zealand*; United Kingdom*; U. S.*; U.S.S.R.†
Jan. 1947-Dec. 1949: Iraq; Mexico.
Jan. 1948-Dec. 1950: Costa Rica (resigned 1949 and replaced by Dominican Republic); Philippines.
Jan. 1950-Dec. 1952: Argentina (resigned 1951 and replaced by El Salvador); Iraq.
Jan. 1951-Dec. 1953: Dominican Republic; Thailand.
Jan. 1953-Dec. 1955: El Salvador, Syria.

* Administering trust territories. † Permanent member of Security Council not administering territories.

Specialized Agencies of the United Nations

(NOTE: The International Refugee Organization, established Aug. 20, 1948, was formally dissolved Jan. 31, 1952.)
 Source: U. N. Dept. of Public Information (Research Section)

Food and Agriculture Organization of the United Nations (FAO)

Established: Oct. 16, 1945, when constitution was signed in Quebec.

Purposes: To raise nutrition levels and living standards; to secure improvements in production and distribution of food and agricultural products.

Headquarters: Viale delle Terme di Caracalla, Rome, Italy.

Inter-Governmental Maritime Consultative Organization (IMCO)

Established: Will not come into existence until 21 nations, of which 7 must each have a total tonnage of at least one million gross tons of shipping, have become parties to convention drawn up by U. N. Maritime Conference at Geneva, Feb. 19 to Mar. 6, 1948. (Preparatory Committee established by Conference will cease to exist after IMCO comes into being.)

Purposes: To promote co-operation among governments in technical problems of international shipping and to encourage removal of discriminatory action by governments and of unfair restrictive practices by shipping concerns.

Headquarters: To be in London.

International Bank for Reconstruction and Development (Bank)

Established: Dec. 27, 1945, when 28 nations signed Articles of Agreement drawn up at Bretton Woods Conference in July, 1944.

Purposes: To assist in reconstruction and development of economies of members by making loans directly and promoting private foreign investment; to promote balanced growth of international trade.

Headquarters: 1818 H St., NW, Washington 25, D. C.

International Civil Aviation Organization (ICAO)

Established: Apr. 4, 1947, 30 days after 26th nation ratified Convention on International Civil Aviation adopted Dec. 7, 1944, by Chicago International Civil Aviation Conference.

Purposes: To study problems of international civil aviation and establish international standards and regulations.

Headquarters: International Aviation Bldg., Montreal, Canada.

International Labour Organization (ILO)

Established: Apr. 11, 1919, when consti-

tution was adopted as Part XIII of Treaty of Versailles.

Purposes: To contribute to establishment of lasting peace by promoting social justice; to improve, through international action, labor conditions and living standards; to promote economic and social stability.

Headquarters: Geneva, Switzerland.

International Monetary Fund (Fund)

Established: Dec. 27, 1945, when nations whose quotas amounted to 80% of Fund's resources had signed Articles of Agreement drawn up at Bretton Woods.

Purposes: To promote international monetary co-operation and expansion of international trade; to promote exchange stability; to assist in establishment of multilateral system of payments in respect of current transactions between members.

Headquarters: 1818 H St., NW, Washington 25, D. C.

International Telecommunication Union (ITU)

Established: Jan. 1, 1934, when International Telecommunication Convention adopted on Dec. 9, 1932, at Madrid Conference became effective.

Purposes: To maintain and extend international co-operation for improvement and rational use of all kinds of telecommunication and to promote development and most efficient operation of technical facilities.

Headquarters: Palais Wilson, Rue de Paquis, Geneva, Switzerland.

International Trade Organization (ITO)

Established: Will not come into existence until sufficient number of countries have ratified Havana Charter drawn up by U. N. Conference on Trade and Employment at Havana, Cuba, Nov. 21, 1947, to Mar. 24, 1948. (Interim Commission established by Conference will cease to exist after ITO comes into being.)

Purposes: To promote expansion of world trade and removal of trade barriers.

Judges of International Court of Justice

(Judges serve for a 9-year term and may be re-elected. Expiration dates of terms are shown in parentheses. The seat of the Court is The Hague, Netherlands.)

President: Sir Arnold D. McNair, U. K. (1955)

Vice President: José G. Guerrero, El Salvador (1955)

Alejandro Alvarez, Chile (1955)

Enrique C. Armond Ugon, Uruguay (1961)

Abdel Hamid Badawi Pasha, Egypt (1958)

Jules Basdevant, France (1955)

Levi Fernandes Carneiro, Brazil (1955) *

Sergei A. Golunsky, U.S.S.R. (1961)

* Elected 1951 to fill vacancy caused by death of J. Philippo de Barros e Azevedo, of Brazil.

United Nations Educational, Scientific and Cultural Organization (UNESCO)

Established: Nov. 4, 1946, when 20th signatory to constitution deposited instrument of acceptance with government of United Kingdom.

Purposes: To promote collaboration among nations through education, science and culture in order to further justice, rule of law and human rights and freedoms without distinction of race, sex, language or religion.

Headquarters: 19 Ave. Kléber, Paris, 16, France.

Universal Postal Union (UPU)

Established: Oct. 9, 1874, by Postal Convention of Bern, Switzerland, effective July 1, 1875.

Purposes: To assure organization and perfection of various postal services and to promote development of international collaboration. To this end, member countries are united in single postal territory for reciprocal exchange of mail.

Headquarters: Schwarztorstrasse 38, Bern, Switzerland.

World Health Organization (WHO)

Established: Apr. 7, 1948, when 26 members of the United Nations ratified constitution adopted July 22, 1946, by International Health Conference in New York City.

Purposes: To aid attainment by all peoples of highest possible level of health.

Headquarters: Palais des Nations, Geneva, Switzerland.

World Meteorological Organization (WMO)

Established: Mar. 23, 1950, 30 days after deposit with government of U. S. of 30th instrument of ratification of or accession to convention adopted in Washington, D. C., Oct. 11, 1947, by twelfth Conference of Directors of International Meteorological Organization (IMO).

Purposes: To facilitate world-wide co-operation and promote standardization in making of meteorological observations; to further application of meteorology to various human activities.

Headquarters: Geneva, Switzerland.

Green H. Hackworth, U. S. (1961)

Hsu Mo, China (1958)

Helge Klaestad, Norway (1961)

Sir Benegal Narsing Rau, India (1961)

John M. Read, Canada (1958)

Bohdan Winlarski, Poland (1958)

Milovan Zoricitch, Yugoslavia (1958)

PRINCIPAL ORGANS AND SUBSIDIARY BODIES:



CHARTER OF THE UNITED NATIONS

WE, the peoples of the United Nations determined to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind, and

To reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small, and

To establish conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained, and

To promote social progress and better standards of life in larger freedom, and for these ends

To practice tolerance and live together in peace with one another as good neighbors, and

To unite our strength to maintain international peace and security, and

To insure, by the acceptance of principles and the institution of methods, that armed force shall not be used, save in the common interest, and

To employ international machinery for the promotion of the economic and social advancement of all peoples, have resolved to combine our efforts to accomplish these aims.

Accordingly, our respective governments, through representatives assembled in the city of San Francisco, who have exhibited their full powers found to be in good and due form, have agreed to the present Charter of the United Nations and do hereby establish an international organization to be known as the United Nations.

CHAPTER I

Purposes and Principles

Article 1

The purposes of the United Nations are:

1. To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace;

2. To develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace;

3. To achieve international co-operation in solving international problems of an economic, social, cultural or humanitarian

character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language or religion; and

4. To be a center for harmonizing the actions of nations in the attainment of these common ends.

Article 2

The organization and its members, in pursuit of the purposes stated in Article 1, shall act in accordance with the following principles:

1. The organization is based on the principle of the sovereign equality of all its members.

2. All members, in order to ensure to all of them the rights and benefits resulting from membership, shall fulfill in good faith the obligations assumed by them in accordance with the present Charter.

3. All members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.

4. All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the purposes of the United Nations.

5. All members shall give the United Nations every assistance in any action it takes in accordance with the present Charter, and shall refrain from giving assistance to any state against which the United Nations is taking preventive or enforcement action.

6. The organization shall ensure that states not members of the United Nations act in accordance with these principles so far as may be necessary for the maintenance of international peace and security.

7. Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII.

CHAPTER II

Membership

Article 3

The original members of the United Nations shall be the states which, having participated in the United Nations Conference on International Organization at San Francisco, or have previously signed

the Declaration by United Nations of Jan. 1, 1942, sign the present Charter and ratify it in accordance with Article 110.

Article 4

1. Membership in the United Nations is open to all other peace-loving states which accept the obligations contained in the present Charter and, in the judgment of the organization, are able and willing to carry out these obligations.

2. The admission of any such state to membership in the United Nations will be effected by a decision of the General Assembly upon the recommendation of the Security Council.

Article 5

A member of the United Nations against which preventive or enforcement action has been taken by the Security Council may be suspended from the exercise of the rights and privileges of membership by the General Assembly upon the recommendation of the Security Council. The exercise of these rights and privileges may be restored by the Security Council.

Article 6

A member of the United Nations which has persistently violated the principles contained in the present Charter may be expelled from the organization by the General Assembly upon the recommendation of the Security Council.

CHAPTER III

Organs

Article 7

1. There are established as the principal organs of the United Nations: A General Assembly, a Security Council, an Economic and Social Council, a Trusteeship Council, an International Court of Justice and a Secretariat.

2. Such subsidiary organs as may be found necessary may be established in accordance with the present Charter.

Article 8

The United Nations shall place no restrictions on the eligibility of men and women to participate in any capacity and under conditions of equality in its principal and subsidiary organs.

CHAPTER IV

The General Assembly Composition

Article 9

The General Assembly shall consist of all the members of the United Nations.

Each member shall not have more than five representatives in the General Assembly.

Functions and Powers

Article 10

The General Assembly may discuss any questions or any matters within the scope of the present Charter or relating to the powers and functions of any organs provided for in the present Charter, and, except as provided in Article 12, may make recommendations to the members of the United Nations or to the Security Council, or to both, on any such questions or matters.

Article 11

1. The General Assembly may consider the general principles of co-operation in the maintenance of international peace and security, including the principles governing disarmament and the regulation of armaments, and may make recommendations with regard to such principles to the members or to the Security Council or to both.

2. The General Assembly may discuss any questions relating to the maintenance of international peace and security brought before it by any member of the United Nations, or by the Security Council, or by a state, which is not a member of the United Nations, in accordance with Article 35, Paragraph 2, and, except as provided in Article 12, may make recommendations with regard to any such questions to the state or states concerned or to the Security Council, or both. Any such question on which action is necessary shall be referred to the Security Council by the General Assembly either before or after discussion.

3. The General Assembly may call the attention of the Security Council to situations which are likely to endanger international peace and security.

4. The powers of the General Assembly set forth in this Article shall not limit the general scope of Article 10.

Article 12

1. While the Security Council is exercising in respect of any dispute or situation the functions assigned to it in the present Charter, the General Assembly shall not make any recommendation with regard to that dispute or situation unless the Security Council so requests.

2. The Secretary-General, with the consent of the Security Council, shall notify the General Assembly at each session of any matters relative to the maintenance of international peace and security which are being dealt with by the Security Council and shall similarly notify the General Assembly, or the members of the United Na-

tions if the General Assembly is not in session, immediately the Security Council ceases to deal with such matters.

Article 13

1. The General Assembly shall initiate studies and make recommendations for the purpose of:

(a) Promoting international co-operation in the political field and encouraging the progressive development of international law and its codification;

(b) Promoting international co-operation in the economic, social, cultural, educational and health fields and assisting in the realization of human rights and fundamental freedoms for all without distinction as to race, sex, language or religion.

2. The further responsibilities, functions and powers of the General Assembly with respect to matters mentioned in Paragraph 1 (b) above are set forth in Chapters IX and X.

Article 14

Subject to the provisions of Article 12, the General Assembly may recommend measures for the peaceful adjustment of any situation, regardless of origin, which it deems likely to impair the general welfare or friendly relations among nations, including situations resulting from a violation of the provisions of the present Charter setting forth the purposes and principles of the United Nations.

Article 15

1. The General Assembly shall receive and consider annual and special reports from the Security Council; these reports shall include an account of the measures that the Security Council has decided upon or taken to maintain international peace and security.

2. The General Assembly shall receive and consider reports from the other organs of the United Nations.

Article 16

The General Assembly shall perform such functions with respect to the international trusteeship system as are assigned to it under Chapters XII and XIII, including the approval of the trusteeship agreements for areas not designated as strategic.

Article 17

1. The General Assembly shall consider and approve the budget of the organization.

2. The expenses of the organization shall be borne by the members as apportioned by the General Assembly.

3. The General Assembly shall consider and approve any financial and budgetary arrangements with specialized agencies re-

ferred to in Article 57 and shall examine the administrative budgets of such specialized agencies with a view to making recommendations to the agencies concerned.

Voting

Article 18

1. Each member of the General Assembly shall have one vote.

2. Decisions of the General Assembly on important questions shall be made by a two-thirds majority of the members present and voting. These questions shall include: recommendations with respect to the maintenance of international peace and security, the election of the non-permanent members of the Security Council, and election of the members of the Economic and Social Council, the election of members of the Trusteeship Council in accordance with Paragraph 1 (c) of Article 86, the admission of new members to the United Nations, the suspension of the rights and privileges of membership, the expulsion of members, questions relating to the operation of the trusteeship system, and budgetary questions.

3. Decisions on other questions, including the determination of additional categories of questions to be decided by a two-thirds majority, shall be made by a majority of the members present and voting.

Article 19

A member of the United Nations which is in arrears in the payment of its financial contributions to the organization shall have no vote in the General Assembly if the amount of its arrears equals or exceeds the amount of the contributions due from it for the preceding two full years. The General Assembly may, nevertheless, permit such a member to vote if it is satisfied that the failure to pay is due to conditions beyond the control of the member.

Procedure

Article 20

The General Assembly shall meet in regular annual sessions and in such special sessions as occasion may require. Special sessions shall be convoked by the Secretary-General at the request of the Security Council or of a majority of the members of the United Nations.

Article 21

The General Assembly shall adopt its own rules of procedure. It shall elect its president for each session.

Article 22

The General Assembly may establish such subsidiary organs as it deems necessary for the performance of its functions.

CHAPTER V

The Security Council
Composition

Article 23

1. The Security Council shall consist of eleven members of the United Nations. The Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, shall be permanent members of the Security Council. The General Assembly shall elect six other members of the United Nations to be non-permanent members of the Security Council, due regard being specially paid, in the first instance to the contribution of members of the United Nations to the maintenance of international peace and security and to the other purposes of the organization, and also to equitable geographical distribution.

2. The non-permanent members of the Security Council shall be elected for a term of two years. In the first election of the non-permanent members, however, three shall be chosen for a term of one year. A retiring member shall not be eligible for immediate re-election.

3. Each member of the Security Council shall have one representative.

Functions and Powers

Article 24

1. In order to insure prompt and effective action by the United Nations, its members confer on the Security Council primary responsibility for the maintenance of international peace and security, and agree that in carrying out its duties under this responsibility the Security Council acts on their behalf.

2. In discharging these duties the Security Council shall act in accordance with the purposes and principles of the United Nations. The specific powers granted to the Security Council for the discharge of these duties are laid down in Chapters VI, VII, VIII and XII.

3. The Security Council shall submit annual and, when necessary, special reports to the General Assembly for its consideration.

Article 25

The members of the United Nations agree to accept and carry out the decisions of the Security Council in accordance with the present Charter.

Article 26

In order to promote the establishment and maintenance of international peace and security with the least diversion for armaments of the world's human and eco-

nomic resources, the Security Council shall be responsible for formulating, with the assistance of the Military Staff Committee, referred to in Article 47, plans to be submitted to the members of the United Nations for the establishment of a system for the regulation of armaments.

Voting

Article 27

1. Each member of the Security Council shall have one vote.

2. Decisions of the Security Council on procedural matters shall be made by an affirmative vote of seven members.

3. Decisions of the Security Council on all other matters shall be made by an affirmative vote of seven members including the concurring votes of the permanent members; provided that, in decisions under Chapter VI and under Paragraph 3 of Article 52 a party to a dispute shall abstain from voting.

Procedure

Article 28

1. The Security Council shall be so organized as to be able to function continuously. Each member of the Security Council shall for this purpose be represented at all times at the seat of the organization.

2. The Security Council shall hold periodic meetings at which each of its members may, if it so desires, be represented by a member of the government or by some other specially designated representative.

3. The Security Council may hold meetings at such places other than the seat of the organization as in its judgment will best facilitate its work.

Article 29

The Security Council may establish such subsidiary organs as it deems necessary for the performance of its functions.

Article 30

The Security Council shall adopt its own rules of procedure, including the method of selecting its president.

Article 31

Any member of the United Nations which is not a member of the Security Council may participate, without vote, in the discussion of any question brought before the Security Council whenever the latter considers that the interests of that member are specially affected.

Article 32

Any member of the United Nations which is not a member of the Security

Council or any state which is not a member of the United Nations, if it is a party to a dispute under consideration by the Security Council, shall be invited to participate, without vote, in the discussion relating to the dispute. The Security Council shall lay down such conditions as it deems just for the participation of a state which is not a member of the United Nations.

CHAPTER VI

Pacific Settlement of Disputes

Article 33

1. The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice.

2. The Security Council shall, when it deems necessary, call upon the parties to settle their dispute by such means.

Article 34

The Security Council may investigate any dispute, or any situation which might lead to international friction or give rise to a dispute, in order to determine whether the continuance of the dispute or situation is likely to endanger the maintenance of international peace and security.

Article 35

1. Any member of the United Nations may bring any dispute or any situation of the nature referred to in Article 34 to the attention of the Security Council or of the General Assembly.

2. A state which is not a member of the United Nations may bring to the attention of the Security Council or of the General Assembly any dispute to which it is a party if it accepts in advance, for the purposes of the dispute, the obligations of pacific settlement provided in the present Charter.

3. The proceedings of the General Assembly in respect of matters brought to its attention under this Article will be subject to the provisions of Articles 11 and 12.

Article 36

1. The Security Council may, at any stage of a dispute of the nature referred to in Article 33 or of a situation of like nature, recommend appropriate procedures or methods of adjustment.

2. The Security Council should take into consideration any procedures for the settlement of the dispute which have already been adopted by the parties.

3. In making recommendations under this Article the Security Council should also take into consideration that legal disputes should as a general rule be referred by the parties to the International Court of Justice in accordance with the provisions of the statute of the Court.

Article 37

1. Should the parties to a dispute of the nature referred to in Article 33 fail to settle it by the means indicated in that Article, they shall refer it to the Security Council.

2. If the Security Council deems that the continuance of the dispute is in fact likely to endanger the maintenance of international peace and security, it shall decide whether to take action under Article 36 or to recommend such terms of settlement as it may consider appropriate.

Article 38

Without prejudice to the provisions of Articles 33 to 37 the Security Council may, if all the parties to any dispute so request, make recommendations to the parties with a view to a pacific settlement of the dispute.

CHAPTER VII

Action with Respect to Threats to the Peace, Breaches of the Peace, and Acts of Aggression

Article 39

The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.

Article 40

In order to prevent an aggravation of the situation, the Security Council may, before making the recommendations or deciding upon the measures provided for in Article 39, call upon the parties concerned to comply with such provisional measures as it deems necessary or desirable. Such provisional measures shall be without prejudice to the rights, claims, or position of the parties concerned. The Security Council shall duly take account of failure to comply with such provisional measures.

Article 41

The Security Council may decide what measures not involving the use of armed force are to be employed to give effect

to its decisions, and it may call upon members of the United Nations to apply such measures. These may include complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communication, and the severance of diplomatic relations.

Article 42

Should the Security Council consider that measures provided for in Article 41 would be inadequate, or have proved to be inadequate, it may take such action by air, sea or land forces as may be necessary to maintain or restore international peace and security. Such action may include demonstrations, blockade, and other operations by air, sea or land forces of members of the United Nations.

Article 43

1. All members of the United Nations, in order to contribute to the maintenance of international peace and security, undertake to make available to the Security Council, on its call and in accordance with a special agreement or agreements, armed forces, assistance, and facilities, including rights of passage, necessary for the purpose of maintaining international peace and security.

2. Such agreement or agreements shall govern the numbers and types of forces, their degree of readiness and general location, and the nature of the facilities and assistance to be provided.

3. The agreement or agreements shall be negotiated as soon as possible on the initiative of the Security Council. They shall be concluded between the Security Council and members or between the Security Council and groups of members and shall be subject to ratification by the signatory states in accordance with their respective constitutional processes.

Article 44

When the Security Council has decided to use force it shall, before calling upon a member not represented on it to provide armed forces in fulfillment of the obligations assumed under Article 43, invite that member, if the member so desires, to participate in the decisions of the Security Council concerning the employment of contingents of that member's armed forces.

Article 45

In order to enable the United Nations to take urgent military measures, members shall hold immediately available national air force contingents for combined international enforcement action. The strength and degree of readiness of these contingents and plans for their combined action shall be determined, within the limits laid

down in the special agreement or agreements referred to in Article 43, by the Security Council with the assistance of the Military Staff Committee.

Article 46

Plans for the application of armed force shall be made by the Security Council with the assistance of the Military Staff Committee.

Article 47

1. There shall be established a Military Staff Committee to advise and assist the Security Council on all questions relating to the Security Council's military requirements for the maintenance of international peace and security, the employment and command of forces placed at its disposal, the regulation of armaments, and possible disarmament.

2. The Military Staff Committee shall consist of the Chiefs of Staff of the permanent members of the Security Council or their representatives. Any member of the United Nations not permanently represented on the Committee shall be invited by the Committee to be associated with it when the efficient discharge of the Committee's responsibilities requires the participation of that member in its work.

3. The Military Staff Committee shall be responsible, under the Security Council, for the strategic direction of any armed forces placed at the disposal of the Security Council. Questions relating to the command of such forces shall be worked out subsequently.

4. The Military Staff Committee, with the authorization of the Security Council and after consultation with appropriate regional agencies, may establish regional subcommittees.

Article 48

1. The action required to carry out the decisions of the Security Council for the maintenance of international peace and security shall be taken by all the members of the United Nations, or by some of them, as the Security Council may determine.

2. Such decisions shall be carried out by the members of the United Nations directly and through their action in the appropriate international agencies of which they are members.

Article 49

The members of the United Nations shall join in affording mutual assistance in carrying out the measures decided upon by the Security Council.

Article 50

If preventive or enforcement measures against any state are taken by the Security Council, any other state, whether a

member of the United Nations or not, which finds itself confronted with special economic problems arising from the carrying out of those measures shall have the right to consult the Security Council with regard to a solution of those problems.

Article 51

Nothing in the present Charter shall impair the inherent right of individual or collective self-defense, if an armed attack occurs against a member of the United Nations, until the Security Council has taken the measures necessary to maintain international peace and security. Measures taken by members in the exercise of this right of self-defense shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.

CHAPTER VIII

Regional Arrangements

Article 52

1. Nothing in the present Charter precludes the existence of regional arrangements or agencies for dealing with such matters relating to the maintenance of international peace and security as are appropriate for regional action, provided that such arrangements or agencies and their activities are consistent with the purposes and principles of the organization.

2. The members of the United Nations entering into such arrangements or constituting such agencies shall make every effort to achieve pacific settlement of local disputes through such regional arrangements or by such regional agencies before referring them to the Security Council.

3. The Security Council shall encourage the development of pacific settlement of local disputes through such regional arrangements or by such regional agencies either on the initiative of the states concerned or by reference from the Security Council.

4. This Article in no way impairs the application of Articles 34 and 35.

Article 53

1. The Security Council shall, where appropriate, utilize such regional arrangements or agencies for enforcement action under its authority. But no enforcement action shall be taken under regional arrangements or by regional agencies without the authorization of the Security Council, with the exception of measures against any enemy state, as defined in Par-

agraph 2 of this Article, provided for pursuant to Article 107, or in regional arrangements directed against renewal of aggressive policy on the part of any such state, until such time as the organization may, on request of the governments concerned, be charged with the responsibility for preventing further aggression by such a state.

2. The term enemy state as used in Paragraph 1 of this Article applies to any state which during the second World War has been an enemy of any signatory of the present Charter.

Article 54

The Security Council shall at all times be kept fully informed of activities undertaken, or in contemplation, under regional arrangements or by regional agencies for the maintenance of international peace and security.

CHAPTER IX

International Economic and Social Co-operation

Article 55

With a view to the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, the United Nations shall promote:

(a) Higher standards of living, full employment, and conditions of economic and social progress and development;

(b) Solutions of international economic, social, health, and related problems; and international cultural and educational co-operation; and

(c) Universal respect for, and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

Article 56

All members pledge themselves to take joint and separate action in co-operation with the organization for the achievement of the purposes set forth in Article 55.

Article 57

1. The various specialized agencies, established by inter-governmental agreement and having wide international responsibilities, as defined in their basic instruments in economic, social, cultural, educational, health and related fields, shall be brought into relationship with the United Nations in accordance with the provisions of Article 63.

2. Such agencies thus brought into relationship with the United Nations are

hereinafter referred to as specialized agencies.

Article 58

The organization shall make recommendations for the coordination of the policies and activities of the specialized agencies.

Article 59

The organization shall, where appropriate, initiate negotiations among the states concerned for the creation of any new specialized agencies required for the accomplishment of the purposes set forth in Article 55.

Article 60

Responsibility for the discharge of the functions of the organization set forth in this Chapter shall be vested in the General Assembly and, under the authority of the General Assembly, in the Economic and Social Council, which shall have for this purpose the powers set forth in Chapter X.

CHAPTER X

Economic and Social Council Composition

Article 61

1. The Economic and Social Council shall consist of eighteen members of the United Nations elected by the General Assembly.

2. Subject to the provisions of Paragraph 3, six members of the Economic and Social Council shall be elected each year for a term of three years. A retiring member shall be eligible for immediate re-election.

3. At the first election, eighteen members of the Economic and Social Council shall be chosen. The term of office of six members so chosen shall expire at the end of one year, and of six other members at the end of two years, in accordance with arrangements made by the General Assembly.

4. Each member of the Economic and Social Council shall have one representative.

Functions and Powers

Article 62

1. The Economic and Social Council may make or initiate studies and reports with respect to international economic, social, cultural, educational, health, and related matters and may make recommendations with respect to any such matters to the General Assembly, to the members of the United Nations, and to the specialized agencies concerned.

2. It may make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms for all.

3. It may prepare draft conventions for submission to the General Assembly, with respect to matters falling within its competence.

4. It may call, in accordance with the rules prescribed by the United Nations, international conferences on matters falling within its competence.

Article 63

1. The Economic and Social Council may enter into agreements with any of the agencies referred to in Article 57, defining the terms on which the agency concerned shall be brought into relationship with the United Nations. Such agreements shall be subject to approval by the General Assembly.

2. It may coordinate the activities of the specialized agencies through consultation with and recommendations to such agencies and through recommendations to the General Assembly and to the members of the United Nations.

Article 64

1. The Economic and Social Council may take appropriate steps to obtain regular reports from the specialized agencies. It may make arrangements with the members of the United Nations and with the specialized agencies to obtain reports on the steps taken to give effect to its own recommendations and to recommendations on matters falling within its competence made by the General Assembly.

2. It may communicate its observations on these reports to the General Assembly.

Article 65

The Economic and Social Council may furnish information to the Security Council and shall assist the Security Council upon its request.

Article 66

1. The Economic and Social Council shall perform such functions as fall within its competence in connection with the carrying out of the recommendations of the General Assembly.

2. It may, with the approval of the General Assembly, perform services at the request of members of the United Nations and at the request of the specialized agencies.

3. It shall perform such other functions as are specified elsewhere in the present Charter or as may be assigned to it by the General Assembly.

Voting

Article 67

1. Each member of the Economic and Social Council shall have one vote.

2. Decisions of the Economic and Social Council shall be made by a majority of the members present and voting.

Procedure

Article 68

The Economic and Social Council shall set up commissions in economic and social fields and for the promotion of human rights, and such other commissions as may be required for the performance of its functions.

Article 69

The Economic and Social Council shall invite any member of the United Nations to participate, without vote, in its deliberations on any matter of particular concern to that member.

Article 70

The Economic and Social Council may make arrangements for representatives of the specialized agencies to participate, without vote, in its deliberations and in those of the commissions established by it, and for its representatives to participate in the deliberations of the specialized agencies.

Article 71

The Economic and Social Council may make suitable arrangements for consultation with non-governmental organizations which are concerned with matters within its competence. Such arrangements may be made with international organizations, and, where appropriate, with national organizations after consultation with the member of the United Nations concerned.

Article 72

1. The Economic and Social Council shall adopt its own rules of procedure, including the method of selecting its president.

2. The Economic and Social Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its members.

CHAPTER XI

Declaration Regarding Non-Self-Governing Territories

Article 73

Members of the United Nations which have or assume responsibilities for the administration of territories whose peoples have not yet attained a full measure of self-government recognize the principle that the interests of the inhabitants of these territories are paramount, and ac-

cept as a sacred trust the obligation to promote to the utmost, within the system of international peace and security established by the present Charter, the well-being of the inhabitants of these territories, and, to this end:

(a) To insure, with due respect for the culture of the peoples concerned, their political, economic, social, and educational advancement, their just treatment, and their protection against abuses;

(b) To develop self-government, to take due account of the political aspirations of the peoples, and to assist them in the progressive development of their free political institutions, according to the particular circumstances of each territory and its peoples and their varying stages of advancement;

(c) To further international peace and security;

(d) To promote constructive measures of development, to encourage research, and to co-operate with one another and, when and where appropriate, with specialized international bodies with a view to the practical achievement of the social, economic and scientific purposes set forth in this Article; and

(e) To transmit regularly to the Secretary-General for information purposes, subject to such limitation as security and constitutional considerations may require, statistical and other information of a technical nature relating to economic, social, and educational conditions in the territories for which they are respectively responsible other than those territories to which Chapters XII and XIII apply.

Article 74

Members of the United Nations also agree that their policy in respect of the territories to which this Chapter applies, no less than in respect of their metropolitan areas, must be based on the general principle of good-neighborliness, due account being taken of the interests and well-being of the rest of the world in social, economic and commercial matters.

CHAPTER XII

International Trusteeship System

Article 75

The United Nations shall establish under its authority an international trusteeship system for the administration and supervision of such territories as may be placed thereunder by subsequent individual agreements. These territories are hereinafter referred to as trust territories.

Article 76

The basic objectives of the trusteeship system in accordance with the purposes

of the United Nations laid down in Article 1 of the present Charter, shall be:

(a) To further international peace and security;

(b) To promote the political, economic, social and educational advancement of the inhabitants of the trust territories, and their progressive development toward self-government or independence as may be appropriate to the particular circumstances of each territory and its peoples and the freely expressed wishes of the peoples concerned, and as may be provided by the terms of each trusteeship agreement;

(c) To encourage respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language or religion, and to encourage recognition of the interdependence of the peoples of the world; and

(d) To insure equal treatment in social, economic and commercial matters for all members of the United Nations and their nationals, and also equal treatment for the latter in the administration of justice, without prejudice to the attainment of the foregoing objectives, and subject to the provisions of Article 80.

Article 77

1. The trusteeship system shall apply to such territories in the following categories as may be placed thereunder by means of trusteeship agreements:

(a) Territories now held under mandate;

(b) Territories which may be detached from enemy states as a result of the second World War; and

(c) Territories voluntarily placed under the system by states responsible for their administration.

2. It will be a matter for subsequent agreement as to which territories in the foregoing categories will be brought under the trusteeship system and upon what terms.

Article 78

The trusteeship system shall not apply to territories which have become members of the United Nations, relationship among which shall be based on respect for the principle of sovereign equality.

Article 79

The terms of trusteeship for each territory to be placed under the trusteeship system, including any alteration or amendment, shall be agreed upon by the states directly concerned, including the mandatory power in the case of territories held under mandate by a member of the United Nations, and shall be approved as provided for in Articles 83 and 85.

Article 80

1. Except as may be agreed upon in individual trusteeship agreements, made under Articles 77, 79 and 81, placing each territory under the trusteeship system, and until such agreements have been concluded, nothing in this Chapter shall be construed in or of itself to alter in any manner the rights whatsoever of any states or any peoples or the terms of existing international instruments to which members of the United Nations may respectively be parties.

2. Paragraph 1 of this Article shall not be interpreted as giving grounds for delay or postponement of the negotiation and conclusion of agreements for placing mandated and other territories under the trusteeship system as provided for in Article 77.

Article 81

The trusteeship agreement shall in each case include the terms under which the trust territory will be administered and designate the authority which will exercise the administration of the trust territory. Such authority, hereinafter called the administering authority, may be one or more states or the organization itself.

Article 82

There may be designated, in any trusteeship agreement, a strategic area or areas which may include part or all of the trust territory to which the agreement applies, without prejudice to any special agreement or agreements made under Article 43.

Article 83

1. All functions of the United Nations relating to strategic areas, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the Security Council.

2. The basic objectives set forth in Article 76 shall be applicable to the people of each strategic area.

3. The Security Council shall, subject to the provisions of the trusteeship agreements and without prejudice to security considerations, avail itself of the assistance of the Trusteeship Council to perform those functions of the United Nations under the trusteeship system relating to political, economic, social and educational matters in the strategic areas.

Article 84

It shall be the duty of the administering authority to insure that the trust territory shall play its part in the maintenance of international peace and security. To this end the administering authority may make use of volunteer forces, facili-

ties, and assistance from the trust territory in carrying out the obligations toward the Security Council undertaken in this regard by the administering authority, as well as for local defense and the maintenance of law and order within the trust territory.

Article 85

1. The functions of the United Nations with regard to trusteeship agreements for all areas not designated as strategic, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the General Assembly.

2. The Trusteeship Council, operating under the authority of the General Assembly, shall assist the General Assembly in carrying out these functions.

CHAPTER XIII

The Trusteeship Council Composition

Article 86

1. The Trusteeship Council shall consist of the following members of the United Nations:

(a) Those members administering trust territories;

(b) Such of those members mentioned by name in Article 23 as are not administering trust territories; and

(c) As many other members elected for three-year terms by the General Assembly as may be necessary to insure that the total number of members of the Trusteeship Council is equally divided between those members of the United Nations which administer trust territories and those which do not.

2. Each member of the Trusteeship Council shall designate one specially qualified person to represent it therein.

Functions and Powers

Article 87

The General Assembly and, under its authority, the Trusteeship Council, in carrying out their functions, may:

(a) Consider reports submitted by the administering authority;

(b) Accept petitions and examine them in consultation with the administering authority;

(c) Provide for periodic visits to the respective trust territories at times agreed upon with the administering authority; and

(d) Take these and other actions in conformity with the terms of the trusteeship agreements.

Article 88

The Trusteeship Council shall formulate a questionnaire on the political, economic, social and educational advancement of the inhabitants of each trust territory, and the administering authority for each trust territory within the competence of the General Assembly shall make an annual report to the General Assembly upon the basis of such questionnaire.

Voting

Article 89

1. Each member of the Trusteeship Council shall have one vote.

2. Decisions of the Trusteeship Council shall be made by a majority of the members present and voting.

Procedure

Article 90

1. The Trusteeship Council shall adopt its own rules of procedure, including the method of selecting its president.

2. The Trusteeship Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its members.

Article 91

The Trusteeship Council shall, when appropriate, avail itself of the assistance of the Economic and Social Council and of the specialized agencies in regard to matters with which they are respectively concerned.

CHAPTER XIV

The International Court of Justice

Article 92

The International Court of Justice shall be the principal judicial organ of the United Nations. It shall function in accordance with the annexed statute, which is based upon the statute of the Permanent Court of International Justice and forms an integral part of the present Chapter.

Article 93

1. All members of the United Nations are ipso facto parties to the statute of the International Court of Justice.

2. A state which is not a member of the United Nations may become a party to the statute of the International Court of Justice on conditions to be determined in each case by the General Assembly upon the recommendation of the Security Council.

Article 94

1. Each member of the United Nations undertakes to comply with the decision of

the International Court of Justice in any case to which it is a party.

2. If any party to a case fails to perform the obligations incumbent upon it under a judgment rendered by the Court, the other party may have recourse to the Security Council, which may, if it deems necessary, make recommendations or decide upon measures to be taken to give effect to the judgment.

Article 95

Nothing in the present Charter shall prevent members of the United Nations from entrusting the solution of their differences to other tribunals by virtue of agreements already in existence or which may be concluded in the future.

Article 96

1. The General Assembly or the Security Council may request the International Court of Justice to give an advisory opinion on any legal question.

2. Other organs of the United Nations and specialized agencies which may at any time be so authorized by the General Assembly, may also request advisory opinions of the Court on legal questions arising within the scope of their activities.

CHAPTER XV

The Secretariat

Article 97

The Secretariat shall comprise a Secretary General and such staff as the organization may require. The Secretary General shall be appointed by the General Assembly upon the recommendation of the Security Council. He shall be the chief administrative officer of the organization.

Article 98

The Secretary General shall act in that capacity in all meetings of the General Assembly, of the Security Council, of the Economic and Social Council and of the Trusteeship Council, and shall perform such other functions as are entrusted to him by these organs. The Secretary General shall make an annual report to the General Assembly on the work of the organization.

Article 99

The Secretary General may bring to the attention of the Security Council any matter which in his opinion may threaten the maintenance of international peace and security.

Article 100

1. In the performance of their duties the Secretary General and the staff shall not seek or receive instructions from any government or from any other authority external to the organization. They shall

refrain from any action which might reflect on their position as international officials responsible only to the organization.

2. Each member of the United Nations undertakes to respect the exclusively international character of the responsibilities of the Secretary General and the staff, and not to seek to influence them in the discharge of their responsibilities.

Article 101

1. The staff shall be appointed by the Secretary General under regulations established by the General Assembly.

2. Appropriate staffs shall be permanently assigned to the Economic and Social Council, the Trusteeship Council, and, as required, to other organs of the United Nations. These staffs shall form a part of the Secretariat.

3. The paramount consideration in the employment of the staff and in the determination of the conditions of service shall be the necessity of securing the highest standards of efficiency, competence and integrity. Due regard shall be paid to the importance of recruiting the staff on as wide a geographical basis as possible.

CHAPTER XVI

Miscellaneous Provisions

Article 102

1. Every treaty and every international agreement entered into by any member of the United Nations after the present Charter comes into force shall as soon as possible be registered with the Secretariat and published by it.

2. No party to any such treaty or international agreement which has not been registered in accordance with the provisions of Paragraph 1 of this Article may invoke that treaty or agreement before any organ of the United Nations.

Article 103

In the event of a conflict between the obligations of the members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail.

Article 104

The organization shall enjoy in the territory of each of its members such legal capacity as may be necessary for the exercise of its functions and the fulfillment of its purposes.

Article 105

1. The organization shall enjoy in the territory of each of its members such privileges and immunities as are necessary for the fulfillment of its purposes.

2. Representatives of the members of the United Nations and officials of the organization shall similarly enjoy such privileges and immunities as are necessary for the independent exercise of their functions in connection with the organization.

3. The General Assembly may make recommendations with a view to determining the details of the application of Paragraphs 1 and 2 of this Article or may propose conventions to the members of the United Nations for this purpose.

CHAPTER XVII

Transitional Security Arrangements

Article 106

Pending the coming into force of such special agreements referred to in Article 43, as in the opinion of the Security Council enable it to begin the exercise of its responsibilities under Article 42, the parties to the Four-Nation Declaration, signed at Moscow, Oct. 30, 1943, and France, shall, in accordance with the provisions of Paragraph 5 of that Declaration, consult with one another and, as occasion requires, with other members of the United Nations with a view to such joint action on behalf of the organization as may be necessary for the purpose of maintaining international peace and security.

Article 107

Nothing in the present Charter shall invalidate or preclude action in relation to any state which during the second World War has been an enemy of any signatory to the present Charter, taken or authorized as a result of that war by the governments having responsibility for such action.

CHAPTER XVIII

Amendments

Article 108

Amendments to the present Charter shall come into force for all members of the United Nations when they have been adopted by a vote of two-thirds of the members of the General Assembly and ratified in accordance with their respective constitutional processes by two-thirds of the members of the United Nations, including all the permanent members of the Security Council.

Article 109

1. A general conference of the members of the United Nations for the purpose of reviewing the present Charter may be held at a date and place to be fixed by a two-thirds vote of the members of the General Assembly and by a vote of any seven members of the Security Council. Each member of the United Nations shall have one vote in the conference.

2. Any alteration of the present Charter recommended by a two-thirds vote of the conference shall take effect when ratified in accordance with their respective constitutional processes by two-thirds of the members of the United Nations including all the permanent members of the Security Council.

3. If such a conference has not been held before the tenth annual session of the General Assembly following the coming into force of the present Charter, the proposal to call such a conference shall be placed on the agenda of that session of the General Assembly, and the conference shall be held if so decided by a majority vote of the members of the General Assembly and by a vote of any seven members of the Security Council.

CHAPTER XIX

Ratification and Signature

Article 110

1. The present Charter shall be ratified by the signatory states in accordance with their respective constitutional processes.

2. The ratifications shall be deposited with the Government of the United States of America, which shall notify all the signatory states of each deposit as well as the Secretary General of the organization when he has been appointed.

3. The present Charter shall come into force upon the deposit of ratifications by the Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, and by a majority of the other signatory states. A protocol of the ratifications deposited shall thereupon be drawn up by the Government of the United States of America which shall communicate copies thereof to all the signatory states.

4. The states signatory to the present Charter which ratify it after it has come into force will become original members of the United Nations on the date of the deposit of their respective ratifications.

Article 111

The present Charter, of which the Chinese, French, Russian, English and Spanish texts are equally authentic, shall remain deposited in the archives of the Government of the United States of America. Duly certified copies thereof shall be transmitted by that Government to the Governments of the other signatory states.

In faith whereof the representatives of the Governments of the United Nations have signed the present Charter.

Done at the city of San Francisco the twenty-sixth day of June, one thousand nine hundred and forty-five.

SPORTS ORGANIZATIONS AND INFORMATION BUREAUS

- ALL-AMERICAN GIRLS BASEBALL LEAGUE. 462 Wrigley Bldg., Chicago 11, Ill.
- AMATEUR ATHLETIC UNION OF THE U. S. 233 Broadway, New York 7, N. Y.
- AMATEUR BICYCLE LEAGUE OF AMERICA. 2320 Grand Ave., New York 68, N. Y.
- AMATEUR FENCERS LEAGUE OF AMERICA. Room 3406, 122 E. 42d St., New York 17, N. Y.
- AMATEUR HOCKEY ASSN. OF THE U. S. Madison Square Garden, 307 W. 49th St., New York 19, N. Y.
- AMATEUR SKATING UNION OF THE U. S. Suite 916, 30 N. La Salle St., Chicago, Ill.
- AMATEUR SOFTBALL ASSN. OF AMERICA. Suite 401, 11 Hill St., Newark 2, N. J.
- AMATEUR TRAPSHOOTING ASSN. OF AMERICA. Vandalia, Ohio
- AMERICAN AUTOMOBILE ASSN. Pennsylvania Ave. at 17th St., N.W., Washington 6, D. C.
- AMERICAN BADMINTON ASSN. 47 Colburn Rd., Wellesley Hills 82, Mass.
- AMERICAN BASEBALL CONGRESS. Box 44, Battle Creek, Mich.
- AMERICAN BOWLING CONGRESS. 1572 E. Capitol Drive, Milwaukee 11, Wis.
- AMERICAN CANOE ASSN. 500 11th St., Brooklyn 15, N. Y.
- AMERICAN HOCKEY LEAGUE. Box 190, Hempstead, N. Y.
- AMERICAN HORSE SHOWS ASSN. 90 Broad St., New York 4.
- AMERICAN KENNEL CLUB. 221 Fourth Ave., New York 3.
- AMERICAN LAWN BOWLING ASSN. 10276 Orton Ave., Los Angeles 64 Calif.
- AMERICAN LEAGUE SERVICE BUREAU (Baseball). 310 S. Michigan Ave., Chicago 4, Ill.
- AMERICAN MOTORCYCLE ASSOCIATION. 106 Buttlers Ave., Columbus 8, Ohio
- AMERICAN POWER BOAT ASSN. 700 Canton Ave., Detroit 7, Mich.
- AMERICAN RACING DRIVERS CLUB (midget auto racing). 309 West 50th St., New York 19, N. Y.
- AMERICAN WATER SKI ASSN. 1661 Monroe Ave., N.W., Grand Rapids, Mich.
- BASEBALL COMMISSIONER FORD C. FRICK. 30 Rockefeller Plaza, New York 20, N. Y.
- BILLIARD CONGRESS OF AMERICA. 2025 W. Fulton St., Chicago 12, Ill.
- EASTERN COLLEGE ATHLETIC CONFERENCE. Biltmore Hotel, New York 17, N. Y.
- ELIAS BASEBALL BUREAU, 11 West 42d St., New York 18
- FISH AND WILDLIFE SERVICE. Dept. of the Interior, Washington 25, D. C.
- INTERNATL. AMATEUR ATHLETIC FEDERATION. 71 St. George's Sq., London, S.W.1, England
- INTERNATIONAL GAME FISH ASSN. American Museum of Natural History, New York 24, N. Y.
- LITTLE LEAGUE BASEBALL. Rm. 1501, 175 Fifth Ave., New York 10, N. Y.
- NATL. ARCHERY ASSN. OF THE U. S. North Pleasant St., Amherst, Mass.
- NATL. ASSN. OF AMATEUR OARSMEN. 119 Heller Parkway, Newark 4, N. J.
- NATL. ASSN. OF ANGLING AND CASTING CLUBS. 960 Paul Brown Bldg., St. Louis 1, Mo.
- NATL. ASSN. OF PROFESSIONAL BASEBALL LEAGUES (Minors). 720 E. Broad St., Columbus 15, Ohio
- NATL. ASSN. OF STATE RACING COMMISSIONERS. Box 156, Lexington, Ky.
- NATL. BASEBALL CONGRESS. Wichita 1, Kans.
- NATL. BASKETBALL ASSN. Empire State Bldg., New York 1, N. Y.
- NATL. BOXING ASSN. Room 2053, New Municipal Center, Washington 1, D. C.
- NATL. COLLEGIATE ATHLETIC ASSN. Fairfax Bldg., 11th and Baltimore, Kansas City 6, Mo.
- NATL. DUCK PIN BOWLING CONGRESS. 1420 New York Ave., N.W., Washington 5, D. C.
- NATL. FOOTBALL LEAGUE. 431 S. Dearborn St., Chicago 5.
- NATL. FOOTBALL LEAGUE. 1518 Walnut St., Philadelphia 2.
- NATL. HOCKEY LEAGUE. Sun Life Bldg., Montreal, Quebec.
- NATL. HORSESHOE PITCHERS ASSN. OF AMERICA. Crestline, Calif.
- NATL. LEAGUE SERVICE BUREAU (Baseball). Carew Tower, Cincinnati 2, Ohio
- NATL. RIFLE ASSN. OF AMERICA. 1600 Rhode Island Ave., Washington 6, D. C.
- NATL. SKEET SHOOTING ASSN. Route 5, Box 595E, Dallas 9
- NATL. SKI ASSN. Box B, Barre, Mass.
- NEW YORK RACING ASSNS. SERVICE BUREAU. 250 Park Ave., New York 17, N. Y.
- NEW YORK STATE ATHLETIC (BOXING) COMMISSION. 226 W. 47th St., New York 36, N. Y.
- NORTH AMERICAN YACHT RACING UNION. 37 West 44th St., New York 18, N. Y.
- PROFESSIONAL GOLFERS' ASSN. OF AMERICA. 134 N. La Salle St., Chicago 2, Ill.
- PROFESSIONAL LAWN TENNIS ASSN. OF THE U. S. 146 E. 54th St., New York 22, N. Y.
- ROLLER SKATING RINK OPERATORS ASSN. OF AMERICA. Box 857, Detroit 31, Mich.
- THE JOCKEY CLUB. 250 Park Ave., New York 17, N. Y.
- THOROUGHbred RACING ASSNS. OF THE U. S. 925 Chrysler Bldg., New York 17, N. Y.
- U. S. AMATEUR ROLLER SKATING ASSN. 120 West 42d St., New York 18, N. Y.
- U. S. CHESS FEDERATION. 208 S. La Salle St., Chicago 4, Ill.
- U. S. FIELD HOCKEY ASSN. 24 Park Place, Rockville Centre, N. Y.
- U. S. FIGURE SKATING ASSN. Rm. 505, 30 Huntington Ave., Boston, Mass.
- U. S. GOLF ASSN. 40 E. 38th St., New York 16, N. Y.
- U. S. HANDBALL ASSN. 505 No. Michigan Ave., Chicago 11.
- U. S. HOCKEY LEAGUE. Box 7, Elmwood Station, Omaha 6, Nebr.
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- U. S. LAWN TENNIS ASSN. 120 Broadway, New York 5, N. Y.
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- U. S. POLO ASSN. 250 Park Ave., New York 17, N. Y.
- U. S. SOCCER FOOTBALL ASSN. 320 Fifth Ave., New York 1.
- U. S. SQUASH RACQUETS ASSN. Rm. 1716, 63 Wall St., New York, N. Y.
- U. S. TABLE TENNIS ASSN. 22 W. Monroe St., Chicago 3, Ill.
- U. S. TROTTER ASSN. 1349 E. Broad St., Columbus 5, Ohio
- U. S. VOLLEY BALL ASSN. Rm. 1705, 291 Broadway, New York 7, N. Y.
- WESTERN HOCKEY LEAGUE. 4405 White-Henry-Stuart Bldg., Seattle 1, Wash.
- WOMAN'S INTERNATIONAL BOWLING CONGRESS. 694 S. High St., Columbus 6, Ohio.

SPORTS

Edited by PETER BRANDWEIN



BASEBALL

THE POPULAR TRADITION that baseball was invented by Abner Doubleday at Cooperstown, N. Y., in 1839, has been enshrined in the Hall of Fame and National Museum of Baseball erected in that town, but research has proved that a game called "Base Ball" was played in this country and England before 1839. However, the first team baseball as we know it was played at the Elysian Fields, Hoboken, N. J., on June 19, 1846, between the Knickerbockers and the New York Nine. There was a gradual growth of baseball and an improvement of equipment and playing skill in the next fifty years. Soldiers returning home from the Civil War spread over the country the game they had learned to play in camp.

Historians have it that the first pitcher to throw a curve was William A. (Candy) Cummings in 1867. The Cincinnati Red Stockings were the first all-professional team and in 1869 they played 64 games without a loss. The standard ball of the

same size and weight, still the rule, was adopted in 1872. The first catcher's mask was worn in 1875. The National League was organized in 1876. The first chest protector was donned in 1885. The three-strike rule was put on the books in 1887 and the four-ball ticket to first base came in 1889. The pitching distance, formerly shorter, was lengthened to 60 feet 6 inches in 1893 and the rules have been only slightly modified since that time.

The American League, under the vigorous leadership of B. B. Johnson, blossomed forth as a major league in 1901. Judge Kenesaw Mountain Landis, by action of the two major leagues, became Commissioner of Baseball in 1921 and, upon his death (1944), Albert B. Chandler, former United States Senator from Kentucky, was elected to that office (1945). Chandler failed to obtain a new contract, and he was succeeded by Ford C. Frick (1951), the National League president.

PROFESSIONAL BASEBALL GOVERNMENT

NATIONAL LEAGUE—AMERICAN LEAGUE—NATIONAL ASSOCIATION

Ford C. Frick, Commissioner

Charles M. Segar, Secretary-Treasurer

30 Rockefeller Plaza, New York 20, N. Y.

NATIONAL LEAGUE

Warren C. Giles

President-Secretary-Treasurer

Office: Carew Tower,

Cincinnati 2, Ohio

Chairman of the Board, John A. Heydler

Service Bureau: Dave Grote, Manager

AMERICAN LEAGUE

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President-Secretary-Treasurer

Office: 310 South Michigan Ave.,

Chicago 4, Ill.

Service Bureau: Earl J. Hilligan, Manager

NATIONAL ASSOCIATION

George M. Trautman

President-Treasurer

720 East Broad St., Columbus 15, Ohio

Vice President—Herman D. White

Publicity Director: Robert L. Finch

Holy Cross Wins No. 500 for Barry

Jack Barry's 500th victory as baseball coach at Holy Cross was a 3-1 decision over Harvard at Cambridge on May 10, 1952. The triumph came during Barry's thirty-second year as mentor of the Crusaders.

Baseball Statistics

Source: The Elias Baseball Bureau, New York City.

Record of World Series Games

(No series in 1904.)

Figures in parentheses indicate number of victories for each club. Pitchers named are winner and loser, respectively.

1903—BOSTON A. L. (5) vs. PITTSBURGH N. L. (3) (Not under Brush rules)

Managers—J. J. Collins, Boston; F. C. Clarke, Pittsburgh.

Oct. 1—Pittsburgh (Phillippe).....	7	Boston (Young).....	3	At Boston
Oct. 2—Boston (Dinneen).....	3	Pittsburgh (Leever).....	0	At Boston
Oct. 3—Pittsburgh (Phillippe).....	4	Boston (Hughes).....	2	At Boston
Oct. 6—Pittsburgh (Phillippe).....	5	Boston (Dinneen).....	4	At Pittsburgh
Oct. 7—Boston (Young).....	11	Pittsburgh (Kennedy).....	2	At Pittsburgh
Oct. 8—Boston (Dinneen).....	6	Pittsburgh (Leever).....	3	At Pittsburgh
Oct. 10—Boston (Young).....	7	Pittsburgh (Phillippe).....	3	At Pittsburgh
Oct. 13—Boston (Dinneen).....	3	Pittsburgh (Phillippe).....	0	At Boston

1905—NEW YORK N. L. (4) vs. PHILADELPHIA A. L. (1)

Managers—John J. McGraw, New York; Connie Mack, Philadelphia.

Oct. 9—New York (Mathewson).....	3	Philadelphia (Plank).....	0	At Philadelphia
Oct. 10—Philadelphia (Bender).....	3	New York (McGinnity).....	0	At New York
Oct. 12—New York (Mathewson).....	9	Philadelphia (Coakley).....	0	At Philadelphia
Oct. 13—New York (McGinnity).....	1	Philadelphia (Plank).....	0	At New York
Oct. 14—New York (Mathewson).....	2	Philadelphia (Bender).....	0	At New York

1906—CHICAGO A. L. (4) vs. CHICAGO N. L. (2)

Managers—Fielder Jones, Chicago A. L.; Frank L. Chance, Chicago N. L.

Oct. 9—Chicago A (Altrock).....	2	Chicago N (Brown).....	1	At Chicago Nat. Pk.
Oct. 10—Chicago N (Reulbach).....	7	Chicago A (White).....	1	At Chicago Am. Pk.
Oct. 11—Chicago A (Walsh).....	3	Chicago N (Pfister).....	0	At Chicago Nat. Pk.
Oct. 12—Chicago N (Brown).....	1	Chicago A (Altrock).....	0	At Chicago Am. Pk.
Oct. 13—Chicago A (Walsh).....	8	Chicago N (Pfister).....	6	At Chicago Nat. Pk.
Oct. 14—Chicago A (White).....	8	Chicago N (Brown).....	3	At Chicago Am. Pk.

1907—CHICAGO N. L. (4) vs. DETROIT A. L. (0)

Managers—Frank L. Chance, Chicago; Hugh Jennings, Detroit.

Oct. 8—Chicago (tie).....	3	Detroit (tie).....	3	At Chicago (12 Inn.)
Oct. 9—Chicago (Pfister).....	3	Detroit (Mullin).....	1	At Chicago
Oct. 10—Chicago (Reulbach).....	5	Detroit (Siever).....	1	At Chicago
Oct. 11—Chicago (Overall).....	6	Detroit (Donovan).....	1	At Detroit
Oct. 12—Chicago (Brown).....	2	Detroit (Mullin).....	0	At Detroit

1908—CHICAGO N. L. (4) vs. DETROIT A. L. (1)

Managers—Frank L. Chance, Chicago; Hugh Jennings, Detroit.

Oct. 10—Chicago (Brown).....	10	Detroit (Summers).....	6	At Detroit
Oct. 11—Chicago (Overall).....	6	Detroit (Donovan).....	1	At Chicago
Oct. 12—Detroit (Mullin).....	8	Chicago (Pfister).....	3	At Chicago
Oct. 13—Chicago (Brown).....	3	Detroit (Summers).....	0	At Detroit
Oct. 14—Chicago (Overall).....	2	Detroit (Donovan).....	0	At Detroit

1909—PITTSBURGH N. L. (4) vs. DETROIT A. L. (3)

Managers—Fred C. Clarke, Pittsburgh; Hugh Jennings, Detroit.

Oct. 8—Pittsburgh (Adams).....	4	Detroit (Mullin).....	1	At Pittsburgh
Oct. 9—Detroit (Donovan).....	7	Pittsburgh (Camnitz).....	2	At Pittsburgh
Oct. 11—Pittsburgh (Maddox).....	8	Detroit (Summers).....	6	At Detroit
Oct. 12—Detroit (Mullin).....	5	Pittsburgh (Leifield).....	0	At Detroit
Oct. 13—Pittsburgh (Adams).....	8	Detroit (Summers).....	4	At Pittsburgh
Oct. 14—Detroit (Mullin).....	5	Pittsburgh (Willis).....	4	At Detroit
Oct. 16—Pittsburgh (Adams).....	8	Detroit (Donovan).....	0	At Detroit

1910—PHILADELPHIA A. L. (4) vs. CHICAGO N. L. (1)

Managers—Connie Mack, Philadelphia; Frank L. Chance, Chicago.

Oct. 17—Philadelphia (Bender).....	4	Chicago (Overall).....	1	At Philadelphia
Oct. 18—Philadelphia (Coombs).....	9	Chicago (Brown).....	3	At Philadelphia
Oct. 20—Philadelphia (Coombs).....	12	Chicago (Melntire).....	5	At Chicago
Oct. 22—Chicago (Brown).....	4	Philadelphia (Bender).....	3	At Chicago (10 inn.)
Oct. 23—Philadelphia (Coombs).....	7	Chicago (Brown).....	2	At Chicago

1911—PHILADELPHIA A. L. (4) vs. NEW YORK N. L. (2)

Managers—Connie Mack, Philadelphia; John J. McGraw, New York.

Oct. 14—New York (Mathewson).....	2	Philadelphia (Bender).....	1	At New York
Oct. 16—Philadelphia (Plank).....	3	New York (Marquard).....	1	At Philadelphia
Oct. 17—Philadelphia (Coombs).....	3	New York (Mathewson).....	2	At New York (11 inn.)
Oct. 24—Philadelphia (Bender).....	4	New York (Mathewson).....	2	At Philadelphia
Oct. 25—New York (Grandall).....	4	Philadelphia (Plank).....	3	At New York (10 inn.)
Oct. 26—Philadelphia (Bender).....	13	New York (Ames).....	2	At Philadelphia

1912—BOSTON A. L. (4) vs. NEW YORK N. L. (3)

Managers—J. Garland Stahl, Boston; John J. McGraw, New York.

Oct. 8—Boston (Wood).....	4	New York (Tesreau).....	3	At New York
Oct. 9—Boston (tie).....	6	New York (tie).....	6	At Boston (11 inn.)
Oct. 10—New York (Marquard).....	2	Boston (O'Brien).....	1	At Boston
Oct. 11—Boston (Wood).....	3	New York (Tesreau).....	1	At New York
Oct. 12—Boston (Bedient).....	2	New York (Mathewson).....	1	At Boston
Oct. 14—New York (Marquard).....	5	Boston (O'Brien).....	2	At New York
Oct. 15—New York (Tesreau).....	11	Boston (Wood).....	4	At Boston
Oct. 16—Boston (Wood).....	3	New York (Mathewson).....	2	At Boston (10 inn.)

1913—PHILADELPHIA A. L. (4) vs. NEW YORK N. L. (1)

Managers—Connie Mack, Philadelphia; John J. McGraw, New York.

Oct. 7—Philadelphia (Bender).....	6	New York (Marquard).....	4	At New York
Oct. 8—New York (Mathewson).....	3	Philadelphia (Plank).....	0	At Philadelphia (10 inn.)
Oct. 9—Philadelphia (Bush).....	8	New York (Tesreau).....	2	At New York
Oct. 10—Philadelphia (Bender).....	6	New York (Demaree).....	5	At Philadelphia
Oct. 11—Philadelphia (Plank).....	3	New York (Mathewson).....	1	At New York

1914—BOSTON N. L. (4) vs. PHILADELPHIA A. L. (0)

Managers—George T. Stallings, Boston; Connie Mack, Philadelphia.

Oct. 9—Boston (Rudolph).....	7	Philadelphia (Bender).....	1	At Philadelphia
Oct. 10—Boston (James).....	1	Philadelphia (Plank).....	0	At Philadelphia
Oct. 12—Boston (James).....	5	Philadelphia (Bush).....	4	At Boston (12 inn.)
Oct. 13—Boston (Rudolph).....	3	Philadelphia (Shawkey).....	1	At Boston

1915—BOSTON A. L. (4) vs. PHILADELPHIA N. L. (1)

Managers—William Carrigan, Boston; Patrick J. Moran, Philadelphia.

Oct. 8—Philadelphia (Alexander).....	3	Boston (Shore).....	1	At Philadelphia
Oct. 9—Boston (Foster).....	2	Philadelphia (Mayer).....	1	At Philadelphia
Oct. 11—Boston (Leonard).....	2	Philadelphia (Alexander).....	1	At Boston
Oct. 12—Boston (Shore).....	2	Philadelphia (Chalmers).....	1	At Boston
Oct. 13—Boston (Foster).....	5	Philadelphia (Rixey).....	4	At Philadelphia

1916—BOSTON A. L. (4) vs. BROOKLYN N. L. (1)

Managers—William Carrigan, Boston; Wilbert J. Robinson, Brooklyn.

Oct. 7—Boston (Shore).....	6	Brooklyn (Marquard).....	5	At Boston
Oct. 9—Boston (Ruth).....	2	Brooklyn (Smith).....	1	At Boston (14 inn.)
Oct. 10—Brooklyn (Coombs).....	4	Boston (Mays).....	3	At Brooklyn
Oct. 11—Boston (Leonard).....	6	Brooklyn (Marquard).....	2	At Brooklyn
Oct. 12—Boston (Shore).....	4	Brooklyn (Pfeffer).....	1	At Boston

1917—CHICAGO A. L. (4) NEW YORK N. L. (2)

Managers—Clarence H. Rowland, Chicago; John J. McGraw, New York.

Oct. 6—Chicago (Cicotte).....	2	New York (Sallee).....	1	At Chicago
Oct. 7—Chicago (Faber).....	7	New York (Anderson).....	2	At Chicago
Oct. 10—New York (Benton).....	2	Chicago (Cicotte).....	0	At New York
Oct. 11—New York (Schupp).....	5	Chicago (Faber).....	0	At New York
Oct. 13—Chicago (Faber).....	8	New York (Sallee).....	5	At Chicago
Oct. 15—Chicago (Faber).....	4	New York (Benton).....	2	At New York

1918—BOSTON A. L. (4) vs. CHICAGO N. L. (2)

Managers—E. G. Barrow, Boston; Fred L. Mitchell, Chicago.

Sept. 5—Boston (Ruth).....	1	Chicago (Vaughn).....	0	At Chicago
Sept. 6—Chicago (Tyler).....	3	Boston (Bush).....	1	At Chicago
Sept. 7—Boston (Mays).....	2	Chicago (Vaughn).....	1	At Chicago
Sept. 9—Boston (Ruth).....	3	Chicago (Douglas).....	2	At Boston
Sept. 10—Chicago (Vaughn).....	3	Boston (Jones).....	0	At Boston
Sept. 11—Boston (Mays).....	2	Chicago (Tyler).....	1	At Boston

1919—CINCINNATI N. L. (5) vs. CHICAGO A. L. (3)

Managers—Patrick J. Moran, Cincinnati; William Gleason, Chicago.

Oct. 1—Cincinnati (Ruether).....	9	Chicago (Cicotte).....	1	At Cincinnati
Oct. 2—Cincinnati (Sallee).....	4	Chicago (Williams).....	2	At Cincinnati
Oct. 3—Chicago (Kerr).....	3	Cincinnati (Fisher).....	0	At Chicago
Oct. 4—Cincinnati (Ring).....	2	Chicago (Cicotte).....	0	At Chicago
Oct. 6—Cincinnati (Eller).....	5	Chicago (Williams).....	0	At Chicago
Oct. 7—Chicago (Kerr).....	5	Cincinnati (Ring).....	4	At Cincinnati
Oct. 8—Chicago (Cicotte).....	4	Cincinnati (Sallee).....	1	At Cincinnati
Oct. 9—Cincinnati (Eller).....	10	Chicago (Williams).....	5	At Chicago (10 inn.)

1920—CLEVELAND A. L. (5) vs. BROOKLYN N. L. (2)

Managers—Tris Speaker, Cleveland; Wilbert J. Robinson, Brooklyn.

Oct. 5—Cleveland (Coveleskie).....	3	Brooklyn (Marquard).....	1	At Brooklyn
Oct. 6—Brooklyn (Grimes).....	3	Cleveland (Bagby).....	0	At Brooklyn
Oct. 7—Brooklyn (Smith).....	2	Cleveland (Caldwell).....	1	At Brooklyn
Oct. 9—Cleveland (Coveleskie).....	5	Brooklyn (Cadore).....	1	At Cleveland
Oct. 10—Cleveland (Bagby).....	8	Brooklyn (Grimes).....	1	At Cleveland
Oct. 11—Cleveland (Mails).....	1	Brooklyn (Smith).....	0	At Cleveland
Oct. 12—Cleveland (Coveleskie).....	3	Brooklyn (Grimes).....	0	At Cleveland

1921—NEW YORK N. L. (5) vs. NEW YORK A. L. (3)

Managers—John J. McGraw, New York N. L.; Miller J. Huggins, New York A. L.

Oct. 5—New York A (Mays).....	3	New York N (Nehf).....	0	At Polo Grounds
Oct. 6—New York A (Hoyt).....	3	New York N (Douglas).....	0	At Polo Grounds
Oct. 7—New York N (Barnes).....	13	New York A (Quinn).....	5	At Polo Grounds
Oct. 9—New York N (Douglas).....	4	New York A (Mays).....	2	At Polo Grounds
Oct. 10—New York A (Hoyt).....	3	New York N (Nehf).....	1	At Polo Grounds
Oct. 11—New York N (Barnes).....	8	New York A (Shawkey).....	5	At Polo Grounds
Oct. 12—New York N (Douglas).....	2	New York A (Mays).....	1	At Polo Grounds
Oct. 13—New York N (Nehf).....	1	New York A (Hoyt).....	0	At Polo Grounds

1922—NEW YORK N. L. (4) vs. NEW YORK A. L. (0)

Managers—John J. McGraw, New York N. L.; Miller J. Huggins, New York A. L.

Oct. 4—New York N (Ryan).....	3	New York A (Bush).....	2	At Polo Grounds
Oct. 5—New York N (tie).....	3	New York A (tie).....	3	At Polo Grounds (10 inn.)
Oct. 6—New York N (Scott).....	3	New York A (Hoyt).....	0	At Polo Grounds
Oct. 7—New York N (McQuillan).....	4	New York A (Mays).....	3	At Polo Grounds
Oct. 8—New York N (Nehf).....	5	New York A (Bush).....	3	At Polo Grounds

1923—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Miller J. Huggins, New York A. L.; John J. McGraw, New York N. L.

Oct. 10—New York N (Ryan).....	5	New York A (Bush).....	4	At Yankee Stadium
Oct. 11—New York A (Pennock).....	4	New York N (McQuillan).....	2	At Polo Grounds
Oct. 12—New York N (Nehf).....	1	New York A (Jones).....	0	At Yankee Stadium
Oct. 13—New York A (Shawkey).....	8	New York N (Scott).....	4	At Polo Grounds
Oct. 14—New York A (Bush).....	8	New York N (Bentley).....	1	At Yankee Stadium
Oct. 15—New York A (Pennock).....	6	New York N (Nehf).....	4	At Polo Grounds

1924—WASHINGTON A. L. (4) vs. NEW YORK N. L. (3)

Managers—Stanley R. Harris, Washington; John J. McGraw, New York.

Oct. 4—New York (Nehf).....	4	Washington (Johnson).....	3	At Washington (12 inn.)
Oct. 5—Washington (Zachary).....	4	New York (Bentley).....	3	At Washington
Oct. 6—New York (McQuillan).....	6	Washington (Marberry).....	4	At New York
Oct. 7—Washington (Mogridge).....	7	New York (Barnes).....	4	At New York
Oct. 8—New York (Bentley).....	6	Washington (Johnson).....	2	At New York
Oct. 9—Washington (Zachary).....	2	New York (Nehf).....	1	At Washington
Oct. 10—Washington (Johnson).....	4	New York (Bentley).....	3	At Washington (12 inn.)

1925—PITTSBURGH N. L. (4) vs. WASHINGTON A. L. (3)

Managers—William B. McKechnie, Pittsburgh; Stanley R. Harris, Washington.

Oct. 7—Washington (Johnson).....	4	Pittsburgh (Meadows).....	1	At Pittsburgh
Oct. 8—Pittsburgh (Aldridge).....	3	Washington (Coveleskie).....	2	At Pittsburgh
Oct. 10—Washington (Ferguson).....	4	Pittsburgh (Kremer).....	3	At Washington
Oct. 11—Washington (Johnson).....	4	Pittsburgh (Yde).....	0	At Washington
Oct. 12—Pittsburgh (Aldridge).....	6	Washington (Coveleskie).....	3	At Washington
Oct. 13—Pittsburgh (Kremer).....	3	Washington (Ferguson).....	2	At Pittsburgh
Oct. 15—Pittsburgh (Kremer).....	9	Washington (Johnson).....	7	At Pittsburgh

1926—ST. LOUIS N. L. (4) vs. NEW YORK A. L. (3)

Managers—Rogers Hornsby, St. Louis; Miller J. Huggins, New York.

Oct. 2—New York (Pennock).....	2	St. Louis (Sherdel).....	1	At New York
Oct. 3—St. Louis (Alexander).....	6	New York (Shocker).....	2	At New York
Oct. 5—St. Louis (Haines).....	4	New York (Ruether).....	0	At St. Louis
Oct. 6—New York (Hoyt).....	10	St. Louis (Reinhart).....	5	At St. Louis
Oct. 7—New York (Pennock).....	3	St. Louis (Sherdel).....	2	At St. Louis (10 Inn.)
Oct. 9—St. Louis (Alexander).....	10	New York (Shawkey).....	2	At New York
Oct. 10—St. Louis (Haines).....	3	New York (Hoyt).....	2	At New York

1927—NEW YORK A. L. (4) vs. PITTSBURGH N. L. (0)

Managers—Miller J. Huggins, New York; Owen J. Busn, Pittsburgh.

Oct. 5—New York (Hoyt).....	5	Pittsburgh (Kremer).....	4	At Pittsburgh
Oct. 6—New York (Pipgras).....	6	Pittsburgh (Aldridge).....	2	At Pittsburgh
Oct. 7—New York (Pennock).....	8	Pittsburgh (Meadows).....	1	At New York
Oct. 8—New York (Moore).....	4	Pittsburgh (Miljus).....	3	At New York

1928—NEW YORK A. L. (4) vs. ST. LOUIS N. L. (0)

Managers—Miller J. Huggins, New York; William B. McKechnie, St. Louis.

Oct. 4—New York (Hoyt).....	4	St. Louis (Sherdel).....	1	At New York
Oct. 5—New York (Pipgras).....	9	St. Louis (Alexander).....	3	At New York
Oct. 7—New York (Zachary).....	7	St. Louis (Haines).....	3	At St. Louis
Oct. 9—New York (Hoyt).....	7	St. Louis (Sherdel).....	3	At St. Louis

1929—PHILADELPHIA A. L. (4) vs. CHICAGO N. L. (1)

Managers—Connie Mack, Philadelphia; Joseph V. McCarthy, Chicago.

Oct. 8—Philadelphia (Ehmke).....	3	Chicago (Root).....	1	At Chicago
Oct. 9—Philadelphia (Earnshaw).....	9	Chicago (Malone).....	3	At Chicago
Oct. 11—Chicago (Bush).....	3	Philadelphia (Earnshaw).....	1	At Philadelphia
Oct. 12—Philadelphia (Rommel).....	10	Chicago (Blake).....	8	At Philadelphia
Oct. 14—Philadelphia (Walberg).....	3	Chicago (Malone).....	2	At Philadelphia

1930—PHILADELPHIA A. L. (4) vs. ST. LOUIS N. L. (2)

Managers—Connie Mack, Philadelphia; Charles E. Street, St. Louis.

Oct. 1—Philadelphia (Grove).....	5	St. Louis (Grimes).....	2	At Philadelphia
Oct. 2—Philadelphia (Earnshaw).....	6	St. Louis (Rhem).....	1	At Philadelphia
Oct. 4—St. Louis (Hallahan).....	5	Philadelphia (Walberg).....	0	At St. Louis
Oct. 5—St. Louis (Haines).....	3	Philadelphia (Grove).....	1	At St. Louis
Oct. 6—Philadelphia (Grove).....	2	St. Louis (Grimes).....	0	At St. Louis
Oct. 8—Philadelphia (Earnshaw).....	8	St. Louis (Hallahan).....	1	At Philadelphia

1931—ST. LOUIS N. L. (4) vs. PHILADELPHIA A. L. (3)

Managers—Charles E. Street, St. Louis; Connie Mack, Philadelphia.

Oct. 1—Philadelphia (Grove).....	6	St. Louis (Derringer).....	2	At St. Louis
Oct. 2—St. Louis (Hallahan).....	2	Philadelphia (Earnshaw).....	0	At St. Louis
Oct. 5—St. Louis (Grimes).....	5	Philadelphia (Grove).....	2	At Philadelphia
Oct. 6—Philadelphia (Earnshaw).....	3	St. Louis (Johnson).....	0	At Philadelphia
Oct. 7—St. Louis (Hallahan).....	5	Philadelphia (Hoyt).....	1	At Philadelphia
Oct. 9—Philadelphia (Grove).....	8	St. Louis (Derringer).....	1	At St. Louis
Oct. 10—St. Louis (Grimes).....	4	Philadelphia (Earnshaw).....	2	At St. Louis

1932—NEW YORK A. L. (4) vs. CHICAGO N. L. (0)

Managers—Joseph V. McCarthy, New York; Charles J. Grimm, Chicago.

Sept. 28—New York (Ruffing).....	12	Chicago (Bush).....	6	At New York
Sept. 29—New York (Gomez).....	5	Chicago (Warneke).....	2	At New York
Oct. 1—New York (Pipgras).....	7	Chicago (Root).....	5	At Chicago
Oct. 2—New York (Moore).....	13	Chicago (May).....	6	At Chicago

1933—NEW YORK N. L. (4) vs. WASHINGTON A. L. (1)

Managers—William H. Terry, New York; Joseph E. Cronin, Washington.

Oct. 3—New York (Hubbell).....	4	Washington (Stewart).....	2	At New York
Oct. 4—New York (Schumacher).....	6	Washington (Crowder).....	1	At New York
Oct. 5—Washington (Whitehill).....	4	New York (Fitzsimmons).....	0	At Washington
Oct. 6—New York (Hubbell).....	2	Washington (Weaver).....	1	At Washington (11 inn.)
Oct. 7—New York (Luque).....	4	Washington (Russell).....	3	At Washington (10 inn.)

1934—ST. LOUIS N. L. (4) vs. DETROIT A. L. (3)

Managers—Frank F. Frisch, St. Louis; Gordon S. Cochrane, Detroit.

Oct. 3—St. Louis (J. Dean).....	8	Detroit (Crowder).....	3	At Detroit
Oct. 4—Detroit (Rowe).....	3	St. Louis (W. Walker).....	2	At Detroit (12 inn.)
Oct. 5—St. Louis (P. Dean).....	4	Detroit (Bridges).....	1	At St. Louis
Oct. 6—Detroit (Auker).....	10	St. Louis (W. Walker).....	4	At St. Louis
Oct. 7—Detroit (Bridges).....	3	St. Louis (J. Dean).....	1	At St. Louis
Oct. 8—St. Louis (P. Dean).....	4	Detroit (Rowe).....	3	At Detroit
Oct. 9—St. Louis (J. Dean).....	11	Detroit (Auker).....	0	At Detroit

1935—DETROIT A. L. (4) vs. CHICAGO N. L. (2)

Managers—Gordon S. Cochrane, Detroit; Charles J. Grimm, Chicago.

Oct. 2—Chicago (Warneke).....	3	Detroit (Rowe).....	0	At Detroit
Oct. 3—Detroit (Bridges).....	8	Chicago (Root).....	3	At Detroit
Oct. 4—Detroit (Rowe).....	6	Chicago (French).....	5	At Chicago (11 inn.)
Oct. 5—Detroit (Crowder).....	2	Chicago (Carleton).....	1	At Chicago
Oct. 6—Chicago (Warneke).....	3	Detroit (Rowe).....	1	At Chicago
Oct. 7—Detroit (Bridges).....	4	Chicago (French).....	3	At Detroit

1936—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Joseph V. McCarthy, Yankees; William H. Terry, Giants.

Sept. 30—Giants (Hubbell).....	6	Yankees (Ruffing).....	1	At Polo Grounds
Oct. 2—Yankees (Gomez).....	18	Giants (Schumacher).....	4	At Polo Grounds
Oct. 3—Yankees (Hadley).....	2	Giants (Fitzsimmons).....	1	At Yankee Stadium
Oct. 4—Yankees (Pearson).....	5	Giants (Hubbell).....	2	At Yankee Stadium
Oct. 5—Giants (Schumacher).....	5	Yankees (Malone).....	4	At Yankee Stadium (10 inn.)
Oct. 6—Yankees (Gomez).....	13	Giants (Fitzsimmons).....	5	At Polo Grounds

1937—NEW YORK A. L. (4) vs. NEW YORK N. L. (1)

Managers—Joseph V. McCarthy, Yankees; William H. Terry, Giants.

Oct. 6—Yankees (Gomez).....	8	Giants (Hubbell).....	1	At Yankee Stadium
Oct. 7—Yankees (Ruffing).....	8	Giants (Melton).....	1	At Yankee Stadium
Oct. 8—Yankees (Pearson).....	5	Giants (Schumacher).....	1	At Polo Grounds
Oct. 9—Giants (Hubbell).....	7	Yankees (Hadley).....	3	At Polo Grounds
Oct. 10—Yankees (Gomez).....	4	Giants (Melton).....	2	At Polo Grounds

1938—NEW YORK A. L. (4) vs. CHICAGO N. L. (0)

Managers—Joseph V. McCarthy, New York; Charles L. Hartnett, Chicago.

Oct. 5—New York (Ruffing).....	3	Chicago (Lee).....	1	At Chicago
Oct. 6—New York (Gomez).....	6	Chicago (Dean).....	3	At Chicago
Oct. 8—New York (Pearson).....	5	Chicago (Bryant).....	2	At New York
Oct. 9—New York (Ruffing).....	8	Chicago (Lee).....	3	At New York

1939—NEW YORK A. L. (4) vs. CINCINNATI N. L. (0)

Managers—Joseph V. McCarthy, New York; William B. McKechnie, Cincinnati.

Oct. 4—New York (Ruffing).....	2	Cincinnati (Derringer).....	1	At New York
Oct. 5—New York (Pearson).....	4	Cincinnati (Walters).....	0	At New York
Oct. 7—New York (Hadley).....	7	Cincinnati (Thompson).....	3	At Cincinnati
Oct. 8—New York (Murphy).....	7	Cincinnati (Walters).....	4	At Cincinnati (10 inn.)

1940—CINCINNATI N. L. (4) vs. DETROIT A. L. (3)

Managers—William B. McKechnie, Cincinnati; Delmar D. Baker, Detroit.

Oct. 2—Detroit (Newsom).....	7	Cincinnati (Derringer).....	2	At Cincinnati
Oct. 3—Cincinnati (Walters).....	5	Detroit (Rowe).....	3	At Cincinnati
Oct. 4—Detroit (Bridges).....	7	Cincinnati (Turner).....	4	At Detroit
Oct. 5—Cincinnati (Derringer).....	5	Detroit (Trout).....	2	At Detroit
Oct. 6—Detroit (Newsom).....	8	Cincinnati (Thompson).....	0	At Detroit
Oct. 7—Cincinnati (Walters).....	4	Detroit (Rowe).....	0	At Cincinnati
Oct. 8—Cincinnati (Derringer).....	2	Detroit (Newsom).....	1	At Cincinnati

1941—NEW YORK A. L. (4) vs. BROOKLYN N. L. (1)

Managers—Joseph V. McCarthy, New York; Leo E. Durocher, Brooklyn.

Oct. 1—New York (Ruffing).....	3	Brooklyn (Davls).....	2	At New York
Oct. 2—Brooklyn (Wyatt).....	3	New York (Chandler).....	2	At New York
Oct. 4—New York (Russo).....	2	Brooklyn (Casey).....	1	At Brooklyn
Oct. 5—New York (Murphy).....	7	Brooklyn (Casey).....	4	At Brooklyn
Oct. 6—New York (Bonham).....	3	Brooklyn (Wyatt).....	1	At Brooklyn

1942—ST. LOUIS N. L. (4) vs. NEW YORK A. L. (1)

Managers—William H. Southworth, St. Louis; Joseph V. McCarthy, New York.

Sept. 30—New York (Ruffing).....	7	St. Louis (M. Cooper).....	4	At St. Louis
Oct. 1—St. Louis (Beazley).....	4	New York (Bonham).....	3	At St. Louis
Oct. 3—St. Louis (White).....	2	New York (Chandler).....	0	At New York
Oct. 4—St. Louis (Lanier).....	9	New York (Donald).....	6	At New York
Oct. 5—St. Louis (Beazley).....	4	New York (Ruffing).....	2	At New York

1943—NEW YORK A. L. (4) vs. ST. LOUIS N. L. (1)

Managers—Joseph V. McCarthy, New York; William H. Southworth, St. Louis.

Oct. 5—New York (Chandler).....	4	St. Louis (Lanier).....	2	At New York
Oct. 6—St. Louis (M. Cooper).....	4	New York (Bonham).....	3	At New York
Oct. 7—New York (Borowy).....	6	St. Louis (Brazle).....	2	At New York
Oct. 10—New York (Russe).....	2	St. Louis (Brecheen).....	1	At St. Louis
Oct. 11—New York (Chandler).....	2	St. Louis (M. Cooper).....	0	At St. Louis

1944—ST. LOUIS N. L. (4) vs. ST. LOUIS A. L. (2)

Managers—William H. Southworth, Cardinals; J. Luther Sewell, Browns.

Oct. 4—Browns (Galehouse).....	2	Cardinals (M. Cooper).....	1	At Sportsman's Park
Oct. 5—Cardinals (Donnelly).....	3	Browns (Muncief).....	2	At Sportsman's Pk. (11 inn.)
Oct. 6—Browns (Kramer).....	6	Cardinals (Wilks).....	2	At Sportsman's Park
Oct. 7—Cardinals (Brecheen).....	5	Browns (Jakucki).....	1	At Sportsman's Park
Oct. 8—Cardinals (M. Cooper).....	2	Browns (Galehouse).....	0	At Sportsman's Park
Oct. 9—Cardinals (Lanier).....	3	Browns (Petter).....	1	At Sportsman's Park

1945—DETROIT A. L. (4) vs. CHICAGO N. L. (3)

Managers—Stephen F. O'Neill, Detroit; Charles J. Grimm, Chicago.

Oct. 3—Chicago (Borowy).....	9	Detroit (Newnouser).....	0	At Detroit
Oct. 4—Detroit (Trucks).....	4	Chicago (Wyse).....	1	At Detroit
Oct. 5—Chicago (Passeau).....	3	Detroit (Overmire).....	0	At Detroit
Oct. 6—Detroit (Trout).....	4	Chicago (Prim).....	1	At Chicago
Oct. 7—Detroit (Newnouser).....	8	Chicago (Borowy).....	4	At Chicago
Oct. 8—Chicago (Borowy).....	8	Detroit (Trout).....	7	At Chicago (12 inn.)
Oct. 10—Detroit (Newnouser).....	9	Chicago (Borowy).....	3	At Chicago

1946—ST. LOUIS N. L. (4) vs. BOSTON A. L. (3)

Managers—Edwin H. Dyer, St. Louis; Joseph E. Cronin, Boston.

Oct. 6—Boston (Johnson).....	3	St. Louis (Pollet).....	2	At St. Louis (10 innings)
Oct. 7—St. Louis (Brecheen).....	3	Boston (Harris).....	0	At St. Louis
Oct. 9—Boston (Ferriss).....	4	St. Louis (Dickson).....	0	At Boston
Oct. 10—St. Louis (Munger).....	12	Boston (Hughson).....	3	At Boston
Oct. 11—Boston (Dobson).....	6	St. Louis (Brazle).....	3	At Boston
Oct. 13—St. Louis (Brecheen).....	4	Boston (Harris).....	1	At St. Louis
Oct. 15—St. Louis (Brecheen).....	4	Boston (Klinger).....	3	At St. Louis

1947—NEW YORK A. L. (4) vs. BROOKLYN N. L. (3)

Managers—Stanley R. Harris, New York; Burton E. Shotton, Brooklyn.

Sept. 30—New York (Shea).....	5	Brooklyn (Branca).....	3	At New York
Oct. 1—New York (Reynolds).....	10	Brooklyn (Lombardi).....	3	At New York
Oct. 2—Brooklyn (Casey).....	9	New York (Newsom).....	8	At Brooklyn
Oct. 3—Brooklyn (Casey).....	3	New York (Bevens).....	2	At Brooklyn
Oct. 4—New York (Shea).....	2	Brooklyn (Barney).....	1	At Brooklyn
Oct. 5—Brooklyn (Branca).....	8	New York (Page).....	6	At New York
Oct. 6—New York (Page).....	5	Brooklyn (Gregg).....	2	At New York

1948—CLEVELAND A. L. (4) vs. BOSTON N. L. (2)

Managers—Louis Boudreau, Cleveland; William H. Southworth, Boston.

Oct. 6—Boston (Sain).....	1	Cleveland (Feiler).....	0	At Boston
Oct. 7—Cleveland (Lemon).....	4	Boston (Spahn).....	1	At Boston
Oct. 8—Cleveland (Beardan).....	2	Boston (Bickford).....	0	At Cleveland
Oct. 9—Cleveland (Gromek).....	2	Boston (Sain).....	1	At Cleveland
Oct. 10—Boston (Spahn).....	11	Cleveland (Feiler).....	1	At Cleveland
Oct. 11—Cleveland (Lemon).....	4	Boston (Voiselle).....	3	At Boston

1949—NEW YORK A. L. (4) vs. BROOKLYN N. L. (1)

Managers—Charles D. Stengel, New York; Burton E. Shotton, Brooklyn.

Oct. 5—New York (Reynolds).....	1	Brooklyn (Newcombe).....	0	At New York
Oct. 6—Brooklyn (Roe).....	1	New York (Raschi).....	0	At New York
Oct. 7—New York (Page).....	4	Brooklyn (Branca).....	3	At Brooklyn
Oct. 8—New York (Lopat).....	6	Brooklyn (Newcombe).....	4	At Brooklyn
Oct. 9—New York (Raschi).....	10	Brooklyn (Barney).....	6	At Brooklyn

1950—NEW YORK A. L. (4) vs. PHILADELPHIA N. L. (0)

Managers—Charles D. Stengel, New York; Edwin M. Sawyer, Philadelphia.

Oct. 4—New York (Raschi).....	1	Philadelphia (Konstanty).....	0	At Philadelphia
Oct. 5—New York (Reynolds).....	2	Philadelphia (Roberts).....	1	At Philadelphia (10 inn.)
Oct. 6—New York (Ferrick).....	3	Philadelphia (Meyer).....	2	At New York
Oct. 7—New York (Ford).....	5	Philadelphia (Miller).....	2	At New York

1951—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Charles D. Stengel, Yankees; Leo E. Durocher, Giants.

Oct. 4—Giants (Koslo).....	5	Yankees (Reynolds).....	1	At Yankee Stadium
Oct. 5—Yankees (Lopat).....	3	Giants (Jansen).....	1	At Yankee Stadium
Oct. 6—Giants (Hearn).....	6	Yankees (Raschi).....	2	At Polo Grounds
Oct. 8—Yankees (Reynolds).....	6	Giants (Maglie).....	2	At Polo Grounds
Oct. 9—Yankees (Lopat).....	13	Giants (Jansen).....	1	At Polo Grounds
Oct. 10—Yankees (Raschi).....	4	Giants (Koslo).....	3	At Yankee Stadium

1952 World Series Statistics

Composite Box Score

NEW YORK YANKEES

BROOKLYN DODGERS

	BATS	G	AB	R	H	2B	3B	HR	RBI	BAT. AVG.
aBauer.....	R	7	18	2	1	0	0	0	1	.056
Rizzuto, ss.....	R	7	27	2	4	1	0	0	0	.148
Mantle, cf.....	L	7	29	5	10	1	1	2	3	.345
Berra, c.....	L	7	28	2	6	1	0	2	3	.214
bCollins, 1b.....	L	6	12	1	0	0	0	0	0	.000
cNoren, lf, rf.....	L	4	10	0	3	0	0	0	1	.300
McDougald, 3b.....	R	7	25	5	5	0	0	1	3	.200
dMartín, 2b.....	R	7	23	2	5	0	0	1	4	.217
eWoodling, lf.....	L	7	23	4	8	1	1	1	1	.348
fMize, 1b.....	L	5	15	3	6	1	0	3	6	.400
Reynolds, p.....	R	4	7	0	0	0	0	0	0	.000
Scarborough, p.....	R	1	0	0	0	0	0	0	0	.000
Raschi, p.....	R	3	6	0	1	0	0	0	1	.167
Lopat, p.....	L	2	3	0	1	0	0	0	1	.333
Gorman, p.....	R	1	0	0	0	0	0	0	0	.000
fSain, p.....	R	2	3	0	0	0	0	0	0	.000
Blackwell, p.....	R	1	1	0	0	0	0	0	0	.000
Kuzava, p.....	R	1	1	0	0	0	0	0	0	.000
gHouk.....	R	1	1	0	0	0	0	0	0	.000
Totals.....		232	26	50	5	2	10	24		.216

	BATS	G	AB	R	H	2B	3B	HR	RBI	BAT. AVG.
Cox, 3b.....	R	7	27	4	8	2	0	0	0	.296
hMorgan, 3b.....	R	2	1	0	0	0	0	0	0	.000
Reese, ss.....	R	7	29	4	10	0	0	1	4	.345
Snider, cf.....	L	7	29	4	10	2	0	4	8	.345
Robinson, 2b.....	R	7	23	4	4	0	0	1	2	.174
iCampanella, c.....	R	7	28	0	6	0	0	0	1	.214
jPafko, lf.....	R	7	21	0	4	0	0	0	2	.190
kHolmes, lf.....	L	3	1	0	0	0	0	0	0	.000
Hodges, 1b.....	R	7	21	1	0	0	0	0	1	.000
Fullido, rf.....	R	7	23	1	4	2	0	0	0	.174
Black, p.....	R	3	6	0	0	0	0	0	0	.000
Erskine, p.....	R	3	6	1	0	0	0	0	0	.000
Loes, p.....	R	2	3	0	1	0	0	0	0	.333
jNelson.....	L	4	3	0	0	0	0	0	0	.000
Lehman, p.....	L	1	0	0	0	0	0	0	0	.000
Roe, p.....	R	3	2	0	0	0	0	0	0	.000
kShuba, lf.....	L	4	10	0	3	1	0	0	0	.300
Rutherford, p.....	L	1	0	0	0	0	0	0	0	.000
lAmoros.....	L	1	0	0	0	0	0	0	0	.000
Totals.....		233	20	50	7	0	6	18		.215

aSafe on error for Noren in 6th inning of 7th game. bRan for Mize in 8th of 4th game. cSingled for Blackwell in 5th of 5th game. dTripled for Reynolds in 8th of 1st game. eHomered for Gorman in 9th of 3rd game. fFlied out for Collins in 9th of 3rd game. gGrounded out for Reynolds in 7th of 7th game. hFlied out for Erskine in 9th of 7th game. iPopped out for Roe in 8th of 6th game, struck out for Shuba in 8th of 7th game. jWalked for Loes in 7th of 2d game, struck out for Cox in 8th of 4th game, struck out for Hodges in 9th of 6th game, popped out for Roe in 7th of 7th game. kFlied out for Black in 8th of 4th game. lRan for Shuba in 8th of 6th game.

SCORE BY INNINGS

New York Yankees.....	0	1	1	3	7	6	3	4	1	0	0	—	26
Brooklyn Dodgers.....	0	2	2	1	5	3	1	3	2	0	1	—	20

PITCHING SUMMARY

	Throws	G	CG	IP	H	R	BB	SO	HB	WP	W	L	Pct.	ER	ERA
Raschi.....	R	3	1	17	12	3	8	15	0	0	2	0	1.000	3	1.59
Reynolds.....	R	4	1	20 1/3	12	4	6	18	0	1	2	1	.667	4	1.80
Scarborough.....	R	1	0	1	1	1	0	1	0	0	0	0	.000	1	9.00
Lopat.....	L	2	0	11 1/3	14	6	4	3	0	0	0	1	.000	6	4.91
Gorman.....	R	1	0	2 5/8	1	0	0	0	0	0	0	0	.000	0	0.00
Blackwell.....	R	1	0	5	4	4	3	4	0	0	0	0	.000	4	7.20
Sain.....	L	1	0	6	2	3	3	2	1	0	0	0	.000	2	3.00
Kuzava.....	L	1	0	2 2/5	0	0	0	2	0	0	0	0	.000	0	0.00
Black.....	R	3	1	21 1/3	15	6	8	9	0	0	1	2	.333	6	2.57
Erskine.....	R	3	1	18	12	9	10	10	0	1	1	1	.500	9	4.00
Loes.....	R	2	0	10 1/3	11	6	5	5	0	0	0	1	.000	5	4.50
Lehman.....	L	1	0	2	2	0	1	0	0	0	0	0	.000	0	0.00
Roe.....	L	3	1	11 1/3	9	4	6	7	1	0	1	0	1.000	4	3.27
Rutherford.....	R	1	0	1	1	1	1	1	0	0	0	0	.000	1	9.00

Stolen bases—McDougald, Snider, Reese, Robinson 2, Loes. Sacrifices—Bauer, Rizzuto, Roe 2, Furillo, Erskine, Cox, Reese. Double plays—Martin and Collins; Rizzuto and Martin; McDougald and Collins; Rizzuto, Martin and Mize 2; Martin, Rizzuto and Mize; McDougald, Berra and Mize; Cox, Robinson and Hodges; Reese, Robinson and Hodges; Hodges, Reese and Robinson; Robinson, Reese and Hodges. Left on bases—Yankees 48, Dodgers 52. Passed ball—Berra. Balk—Loes. Umpires—Pinelli (N), Passarella (A), Goetz (N), McKinley (A), Bogges (N), Honochick (A).

Attendances—First game, 34,861; second, 33,792; third, 66,698; fourth, 71,787; fifth, 70,536; sixth, 30,037; seventh, 33,195. Times of games—First, 2:21; second, 2:47; third, 2:56; fourth, 2:33; fifth, 3:00; sixth, 2:56; seventh, 2:54.

1ST GAME—At Ebbets Field, Oct. 1

NEW YORK (A)

	AB	R	H	PO	A	E
Bauer, rf.	4	0	0	2	0	0
Rizzuto, ss.	4	0	1	2	1	0
Mantle, cf.	4	0	2	2	0	0
Berra, c.	4	0	0	7	2	0
Collins, 1b.	4	0	0	7	0	0
Noren, lf.	3	0	0	1	0	0
McDougald, 3b.	2	1	1	0	4	1
Martin, 2b.	3	0	1	2	1	0
Reynolds, p.	2	0	0	0	1	1
aWoodling.	1	1	1	0	0	0
Scarborough, p.	0	0	0	0	1	0
Total.	31	2	6	24	10	2

BROOKLYN (N)

	AB	R	H	PO	A	E
Cox, 3b.	3	0	0	1	2	0
Reese, ss.	4	2	2	4	1	0
Snider, cf.	4	1	2	2	0	0
Robinson, 2b.	2	1	1	1	4	0
Campanella, c.	3	0	0	3	1	0
Pafko, lf.	3	0	0	3	1	0
Hodges, 1b.	3	0	0	6	3	0
Furillo, rf.	3	0	0	3	0	0
Black, p.	3	0	0	1	0	0
Total.	28	4	6	27	11	0

aTripled for Reynolds in eighth.

New York (A)	0	0	1	0	0	0	1	0	—2
Brooklyn (N)	0	1	0	0	0	2	0	1	—4

Runs batted in—Robinson, McDougald, Snider 2, Bauer, Reese.

Two-base hit—Snider. Three-base hit—Woodling. Home runs—Robinson, McDougald, Snider, Reese. Double plays—Martin and Collins; Cox, Robinson and Hodges. Left on bases—Yankees 4, Dodgers 2. Bases on balls—Off Reynolds 2 (Cox, Robinson), Black 2 (McDougald, Noren). Struck out—By Reynolds 4 (Reese, Black 2, Hodges), Scarborough 1 (Black), Black 6 (Martin, Reynolds, Bauer, Rizzuto, Mantle, Noren). Hits—Off Reynolds 5 in 7 innings, Scarborough 1 in 1. Runs and earned runs—Off Reynolds 3 and 3, Scarborough 1 and 1, Black 2 and 2. Wild pitch—Reynolds. Losing pitcher—Reynolds.

Umpires—Pinelli (N), plate; Passarella (A), 1b; Goetz (N), 2b; McKinley (A), 3b; Bogges (N), lf; Honochick (A), rf. Time—2:21. Attendance—34,861.

2ND GAME—At Ebbets Field, Oct. 2

NEW YORK (A)

	AB	R	H	PO	A	E
Bauer, rf.	4	0	1	3	0	0
Rizzuto, ss.	4	0	0	2	2	0
Mantle, cf.	5	2	3	2	0	0
Woodling, lf.	4	1	1	2	0	0
Berra, c.	3	0	2	10	2	0
Collins, 1b.	3	1	1	0	1	0
McDougald, 3b.	3	2	1	0	1	0
Martin, 2b.	4	1	2	0	0	0
Raschi, p.	3	0	0	0	0	0
Total.	33	7	10	27	7	0

BROOKLYN (N)

	AB	R	H	PO	A	E
Cox, 3b.	4	0	0	1	0	0
Reese, ss.	3	1	1	2	5	0
Snider, cf.	4	0	1	1	0	0
Robinson, 2b.	3	0	0	3	3	0
Campanella, c.	4	0	0	1	7	3
Pafko, lf.	4	0	0	2	0	0
Hodges, 1b.	0	0	0	9	0	1
Furillo, rf.	3	0	0	2	0	0
Erskine, p.	2	0	0	0	1	0

Loes, p.	0	0	0	0	0	0
aNelson.	0	0	0	0	0	0
Lehman, p.	0	0	0	0	1	0

Total.	30	1	3	27	13	1
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aWalked for Loes in seventh.

New York (A)	0	0	1	1	5	0	0	0	—7
Brooklyn (N)	0	0	1	0	0	0	0	0	—1

Runs batted in—Campanella, Berra, Martin 4, McDougald.

Two-base hit—Mantle. Home run—Martin. Stolen base—McDougald. Double play—Reese, Robinson and Hodges. Left on bases—New York 6, Brooklyn 7. Bases on balls—Off Erskine 6 (Rizzuto, Woodling, Raschi, McDougald, Bauer, Berra), Raschi 5 (Robinson, Hodges, Furillo, Nelson, Reese), Lehman 1 (Collins). Struck out—By Erskine 4 (Mantle, Collins, McDougald, Raschi), Raschi 9 (Snider 3, Cox, Pafko, Hodges, Reese, Furillo 2, Loes 2 (Raschi, Bauer). Hits—Off Erskine 6 in 5 innings (none out in sixth), Loes 2 in 2, Lehman 2 in 2. Runs and earned runs—Off Erskine 4 and 4, Loes 3 and 2; Raschi 1 and 1. Wild pitch—Erskine. Losing pitcher—Erskine.

Umpires—Passarella (A), plate; Goetz (N), 1b; McKinley (A), 2b; Pinelli (N), 3b; Honochick (A), lf; Bogges (N), rf. Time—2:47. Attendance—33,792.

3RD GAME—At Yankee Stadium, Oct. 3

BROOKLYN (N)

	AB	R	H	PO	A	E
Furillo, rf.	5	1	1	0	0	0
Reese, ss.	5	1	3	1	4	0
Robinson, 2b.	4	2	2	2	3	0
Campanella, c.	5	0	1	9	1	0
Pafko, lf.	0	0	2	0	0	0
Snider, cf.	5	0	1	3	0	0
Hodges, 1b.	3	0	0	9	2	0
Cox, 3b.	2	1	1	0	2	0
Roe, p.	2	0	0	1	0	0
Total.	36	5	11	27	12	0

NEW YORK (A)

	AB	R	H	PO	A	E
Rizzuto, ss.	4	0	0	4	4	0
Collins, 1b.	4	0	0	9	0	0
bSain.	1	0	0	0	0	0
Mantle, cf.	4	0	0	6	0	0
Woodling, lf.	4	0	1	2	0	0
Berra, c.	4	1	3	1	1	1
Bauer, rf.	2	1	0	3	0	0
McDougald, 3b.	4	0	0	1	2	1
Martin, 2b.	1	0	0	3	3	0
Lopat, p.	2	0	1	0	0	0
Gorman, p.	0	0	0	0	0	0
aMize.	1	1	1	0	0	0
Total.	31	3	6	27	10	2

aHit homer for Gorman in ninth. bFiled out for Collins in ninth.

Brooklyn (N)	0	0	1	0	1	0	0	1	2	—5
New York (A)	0	1	0	0	0	0	0	1	1	—3

Runs batted in—Lopat, Robinson, Reese, Pafko, Berra, Mize.

Two-base hits—Furillo, Berra. Home runs—Berra, Mize. Stolen bases—Snider, Reese, Robinson, Sacrifices—Bauer, Roe 2. Double plays—Rizzuto and Martin; McDougald and Collins. Left on bases—Brooklyn 10, New York 8. Bases on balls—Off Lopat 4 (Robinson, Cox 2, Hodges), Roe 5 (Rizzuto, Bauer, Martin 2, Lopat). Struck out—By Roe 5 (Collins, Woodling 2, McDougald, Lopat). Hits—Off Lopat 10 in 8½ innings, Gorman 1 in ½. Runs and earned runs—Off Lopat 5 and 5, Roe 3 and 3. Hit by pitcher—By Roe (Martin). Passed ball—Berra. Losing pitcher—Lopat.

Umpires—Goetz (N), plate; McKinley (A), 1b; Pinelli (N), 2b; Passarella (A), 3b; Bogges (N), lf; Honochick (A), rf. Time—2:56. Attendance—66,698.

When Hank Sauer of the Cubs tagged Curt Simmons of the Phillies for three homers in a single game on July 11, 1952, he became the first slugger to perform

the feat twice against the same pitcher in two different games. Sauer smashed three homers off Simmons, a southpaw, on Aug. 28, 1950, also at Wrigley Field, Chicago.

4TH GAME—At Yankee Stadium, Oct. 4

BROOKLYN (N)

	AB	R	H	PO	A	E
Cox, 3b.....	3	0	0	2	2	0
bNelson.....	1	0	0	0	0	0
Morgan, 3b.....	1	0	0	0	1	0
Reese, ss.....	4	0	2	0	3	1
Snider, cf.....	4	0	0	5	0	0
Robinson, 2b.....	4	0	0	0	2	0
Campanella, c.....	3	0	0	4	0	0
Pafko, lf.....	3	0	1	2	0	0
Hodges, 1b.....	2	0	0	10	0	0
Furillo, rf.....	2	0	1	1	0	0
Black, p.....	1	0	0	0	2	0
aShuba,.....	1	0	0	0	0	0
Rutherford, p.....	0	0	0	0	0	0
Total.....	28	0	4	24	10	1

NEW YORK (A)

	AB	R	H	PO	A	E
McDougald, 3b.....	3	0	0	0	1	0
Rizzuto, ss.....	2	0	0	1	3	0
Mantle, cf.....	3	1	1	4	0	0
Mize, 1b.....	3	1	2	4	2	0
Collins, 1b.....	0	0	0	1	0	0
Berra, c.....	4	0	0	12	1	0
Woodling, lf.....	3	0	1	1	0	0
Bauer, rf.....	4	0	0	1	0	0
Martin, 2b.....	3	0	0	2	1	1
Reynolds, p.....	3	0	0	1	0	0
Total.....	28	2	4	27	8	1

aFiled out for Black in eighth. bStruck out for Cox in eighth.

Brooklyn (N)..... 0 0 0 0 0 0 0 0-0
New York (A)..... 0 0 0 1 0 0 0 1-2

Runs batted in—Mize.
Two-base hits—Woodling, Mize. Three-base hits—Mantle. Home run—Mize. Sacrifice—Furillo.
Double-play—Rizzuto, Martin, Mize. Left on bases—Dodgers 5, Yankees 8. Bases on balls—Off Black 5 (Mantle, Rizzuto 2, McDougald, Woodling), Rutherford 1 (Mize), Reynolds 3 (Hodges, Black, Campanella). Struck out—By Reynolds 10 (Cox, Robinson 3, Campanella 2, Pafko 2, Black, Nelson), Black 2 (Berra, Reynolds), Rutherford 1 (Bauer). Hits—off Black 7 in 7 innings. Rutherford 1 in 1. Runs and earned runs—Off Black 1 and 1; Rutherford 1 and 1. Losing pitcher—Black.

Umpires—McKinley (A), plate; Pinelli (N), 1b; Passarella (A), 2b; Goetz (N), 3b; Honochick (A), lf; Bogges (N), rf. Time—2:33. Attendance—71,787.

5TH GAME—At Yankee Stadium, Oct. 5

BROOKLYN (N)

	AB	R	H	PO	A	E
Cox, 3b.....	5	2	3	2	2	0
Reese, ss.....	5	0	1	1	1	0
Snider, cf.....	5	1	3	2	1	0
Robinson, 2b.....	5	0	0	2	1	0
Shuba, lf.....	2	0	1	4	0	0
Furillo, rf.....	4	0	1	3	0	0
Campanella, c.....	5	0	0	6	1	0
Pafko, rf, lf.....	4	0	1	3	0	0
Holmes, lf.....	1	0	0	2	0	0
Hodges, 1b.....	3	1	0	6	0	0
Erskine, p.....	4	1	0	0	1	0
Total.....	40	6	10	33	6	0

NEW YORK (A)

	AB	R	H	PO	A	E
McDougald, 3b.....	4	1	0	0	2	0
Rizzuto, ss.....	5	1	1	1	4	1
Mantle, cf.....	5	0	1	1	0	0
Mize, 1b.....	5	1	1	9	1	0
Berra, c.....	4	0	0	10	1	0
Woodling, lf.....	4	0	0	5	0	0
Bauer, rf.....	3	1	0	1	0	0
Martin, 2b.....	4	1	1	6	3	0
Blackwell, p.....	1	0	0	0	1	0
aNoren.....	1	0	1	0	0	0
Sain, p.....	2	0	0	0	2	0
Total.....	38	5	5	33	14	1

aSingled for Blackwell in fifth.

Brooklyn (N)..... 0 1 0 0 3 0 1 0 0 1-6
New York (A)..... 0 0 0 0 5 0 0 0 0 0-5

Runs batted in—Pafko, Reese, Snider 4, Noren, McDougald, Mize 3.

Two-base hits—Furillo, Snider. Home runs—Snider, Mize. Stolen base—Robinson. Sacrifices—Erskine, Cox, Reese. Double plays—Martin, Rizzuto and Mize; McDougald, Berra and Mize. Left on

bases—Dodgers 11, Yankees 3. Bases on balls—Off Blackwell 3 (Robinson, Hodges 2), Sain 3 (Robinson 3), Erskine 3 (Berra, McDougald, Bauer). Struck out—By Erskine 6 (Mantle, Mize, Berra 2, Woodling, Rizzuto), Blackwell 4 (Campanella, Snider, Shuba, Robinson), Sain 3 (Hodges, Erskine, Campanella). Hits—Off Blackwell 4 in 5 innings, Sain 6 in 6. Runs and earned runs—Off Blackwell 4 and 4, Sain 2 and 2, Erskine 5 and 5. Hit by pitcher—By Sain (Snider). Losing pitcher—Sain.

Umpires—Pinelli (N), plate; Passarella (A), 1b; Goetz (N), 2b; McKinley (A), 3b; Bogges (N), lf; Honochick (A), rf. Time—3:00. Attendance—70,536.

6TH GAME—At Ebbets Field, Oct. 6

NEW YORK (A)

	AB	R	H	PO	A	E
McDougald, 3b.....	3	0	0	7	0	0
Rizzuto, ss.....	4	0	1	2	2	0
Mantle, cf.....	3	1	1	0	0	0
Mize, 1b.....	3	0	0	7	0	0
Collins, 1b.....	1	0	0	2	0	0
Berra, c.....	5	1	1	12	0	0
Woodling, lf.....	3	1	2	3	0	0
Noren, rf.....	4	0	2	0	0	0
Bauer, rf.....	4	0	0	0	0	0
Martin, 2b.....	4	0	0	0	3	0
Raschi, p.....	0	0	1	0	1	0
Reynolds, p.....	1	0	0	0	0	0
Total.....	35	3	9	27	8	0

BROOKLYN (N)

	AB	R	H	PO	A	E
Cox, 3b.....	5	0	2	1	3	0
Reese, ss.....	4	0	0	5	2	1
Snider, cf.....	3	2	2	4	0	0
Robinson, 2b.....	4	0	1	2	0	0
Shuba, lf.....	4	0	1	2	0	0
aAmoros.....	0	0	0	0	0	0
Holmes, lf.....	0	0	0	0	0	0
Campanella, c.....	4	0	1	5	0	0
Hodges, 1b.....	3	0	0	7	1	0
bNelson.....	1	0	0	0	0	0
Furillo, lf.....	3	0	1	1	0	0
Loes, p.....	3	0	0	0	2	0
Roe, p.....	0	0	0	0	0	0
cPafko.....	1	0	0	0	0	0
Total.....	35	2	8	27	10	1

aRan for Shuba in eighth. bStruck out for Hodges in ninth. cPopped out for Roe in ninth.

New York (A)..... 0 0 0 0 0 0 2 1 0-3
Brooklyn (N)..... 0 0 0 0 0 1 0 1 0-2

Runs batted in—Snider 2, Berra, Raschi, Mantle.

Two-base hits—Cox, Shuba. Home runs—Snider 2, Berra, Mantle. Stolen base—Loes. Double play—Hodges, Reese and Robinson. Left on bases—Yankees 11, Dodgers 8. Bases on balls—Off Loes 5 (Mantle, Mize, Rizzuto, McDougald, Woodling), Roe 1 (Mantle), Raschi 1 (Snider), Reynolds 1 (Furillo). Struck out—By Loes 3 (Noren 2, Martin), Roe 1 (Collins, Raschi 9 (Hodges 3, Loes, Robinson, Shuba 2, Furillo, Cox). Sacrifices—Campanella, Nelson. Hits—Off Raschi 8 in 7½ innings, Loes 9 in 8½, Roe 0 in ½, Reynolds 0 in 1½. Runs and earned runs—Off Raschi 2 and 2, Loes 3 and 3. Balk—Loes. Winning pitcher—Raschi. Losing pitcher—Loes.

Umpires—Passarella (A), plate; Goetz (N), 1b; McKinley (A), 2b; Pinelli (N), 3b; Honochick (A), lf; Bogges (N), rf. Time—2:56. Attendance—30,037.

7TH GAME—At Ebbets Field, Oct. 7

NEW YORK (A)

	AB	R	H	PO	A	E
McDougald, 3b.....	5	1	2	2	3	2
Rizzuto, ss.....	4	1	1	1	1	0
Mantle, cf.....	5	1	1	1	0	0
Mize, 1b.....	3	0	2	6	0	0
Collins, 1b.....	0	0	0	1	0	0
Berra, c.....	4	0	0	7	0	0
Woodling, lf.....	4	1	2	5	0	1
Noren, rf.....	2	0	0	1	0	0
Bauer, rf.....	1	0	0	0	0	0
Martin, 2b.....	4	0	1	2	4	0
Lopat, p.....	1	0	0	0	1	0
Reynolds, p.....	1	0	0	1	0	1
aHouk.....	1	0	0	0	0	0
Raschi, p.....	0	0	0	0	0	0
Kuzava, p.....	1	0	0	0	0	0
Total.....	36	4	10	27	9	4

[BROOKLYN (N)]

	AB	R	H	PO	A	E
Cox, 3b.....	5	1	2	2	3	1
Reese, ss.....	4	0	1	2	2	0
Snider, cf.....	4	1	1	4	0	0

Robinson, 2b.....	4	0	1	0	4	0
Campanella, c.....	4	0	2	2	0	0
Hodges, 1b.....	4	0	0	13	0	0
Shuba, lf.....	3	0	1	1	0	0
cPafko.....	1	0	0	0	0	0
Holmes, lf.....	0	0	0	0	0	0
Furillo, rf.....	3	0	0	3	0	0
Black, p.....	2	0	0	0	0	0
Roe, b.....	0	0	0	0	0	0
bNelson.....	1	0	0	0	0	0
Erskine, p.....	0	0	0	0	0	0
dMorgan.....	1	0	0	0	0	0
Total.....	36	2	8	27	9	1

aGrounded out for Reynolds in seventh. bPopped out for Roe in seventh. cStruck out for Shuba in eighth. dFlied out for Erskine in ninth.

New York (A)..... 0 0 0 1 1 1 0 0-4
Brooklyn (N)..... 0 0 0 1 1 0 0 0-2

Runs batted in—Mize, Hodges, Woodling, Reese, Mantle 2.

Two-base hits—Rizzuto, Cox. Home runs—Woodling, Mantle. Sacrifice—Rizzuto. Double plays—Robinson, Reese and Hodges; Rizzuto, Martin and Mize. Left on bases—Yankees 8, Dodgers 9. Bases on balls—Off Black 1 (Mize), Erskine 1 (Bauer), Raschi 2 (Furillo, Reese). Struck out—By Black 1 (Mantle), Roe 1 (Berra), Lopat 3 (Cox, Snider, Black), Reynolds 2 (Shuba, Black), Kuzava 2 (Campanella, Pafko). Hits—Off Lopat 4 in 3 innings (none out in 4th), Black 6 in 5½, Reynolds 3 in 3, Roe 3 in 1½, Raschi 1 in ¼, Erskine 1 in 2, Kuzava 0 in 2½. Runs and earned runs—Off Lopat 1 and 1, Black 3 and 3, Reynolds 1 and 1, Roe 1 and 1. Winning pitcher—Reynolds. Losing pitcher—Black.

Umpires—Goetz (N), plate; McKinley (A), 1b; Pinelli (N), 2b; Passarella (A), 3b; Boggess (N), lf; Honochick (A), rf. Time—2:54. Attendance—33,195.

OTHER 1952 SERIES STATISTICS

Final Standing of the Clubs

	Won	Lost	Pct.
New York Yankees	4	3	.571
Brooklyn Dodgers	3	4	.429

Seven-Game Totals

Paid attendance—340,906.
Net receipts—\$1,622,753.01.
*Players' pool—\$500,003.38.
Commissioner's share—\$243,402.96.
Clubs' and leagues' share—\$879,336.79.

* Players share in receipts of first four games.

HOME ATTENDANCE FIGURES

(Unofficial)

American League

	1952	1951	Other club records
New York....	1,637,260	1,950,107	2,373,901 (1948)
Cleveland....	1,444,607	1,704,984	2,620,627 (1948)
Chicago.....	1,231,675	1,328,234*	1,596,650 (1949)
Boston.....	1,105,750	1,312,282	1,951,474 (1950)
Detroit.....	1,026,846	1,132,641	1,027,216 (1496)
Washington..	695,457	695,167	945,076 (1948)
Philadelphia	626,830	465,469	712,918 (1922)
St. Louis.....	518,796	293,790	
Totals.....	8,291,221	8,882,674	

* Club record. Cleveland's 1948 total is the record for the major leagues. League record—11,150,099 in 1948.

National League

	1952	1951	Club records
Brooklyn....	1,088,600	1,282,628	1,807,526 (1947)
Chicago.....	1,024,826	894,415	1,485,166 (1929)
New York....	985,011	1,059,539	1,600,793 (1947)
St. Louis....	913,213	1,013,429	1,430,676 (1949)
Philadelphia	755,417	937,658	1,217,035 (1950)
Pittsburgh..	686,670	980,590	1,217,021 (1948)
Cincinnati..	606,824	588,268	981,443 (1939)
Boston.....	281,000	487,475	1,455,439 (1948)
Totals.....	6,341,561	7,244,002	

Grand totals 14,632,782 16,126,676
National League record—10,388,470 in 1947.

World Series Club Standing

	Series	Won	Lost	Pct.
Cleveland (A)	2	2	0	1.000
Boston (A)	6	5	1	.833
New York (A)	19	15	4	.789
St. Louis (N)	9	6	3	.667
Cincinnati (N) ...	3	2	1	.667
Chicago (A)	3	2	1	.667
Philadelphia (A) ..	8	5	3	.625
Boston (N)	2	1	1	.500
Pittsburgh (N) ...	4	2	2	.500
Washington (A) ...	3	1	2	.333
New York (N)	13	4	9	.308
Detroit (A)	7	2	5	.286
Chicago (N)	10	2	8	.200
St. Louis (A)	1	0	1	.000
Philadelphia (N) ..	2	0	2	.000
Brooklyn (N)	6	0	6	.000

RECAPITULATION

	Won
American League	32
National League	17

RUTH'S BASEBALL EARNINGS

Year	Club	Salary
1914	Baltimore (I).....	\$ 600
1914*	Boston (A).....	1,300
1915	Boston (A).....	3,500
1916	Boston (A).....	3,500
1917	Boston (A).....	5,000
1918	Boston (A).....	7,000
1919	Boston (A).....	10,000
1920	New York (A).....	20,000
1921	New York (A).....	30,000
1922	New York (A).....	52,000
1923	New York (A).....	52,000
1924	New York (A).....	52,000
1925	New York (A).....	52,000
1926	New York (A).....	52,000
1927	New York (A).....	70,000
1928	New York (A).....	70,000
1929	New York (A).....	70,000
1930	New York (A).....	80,000
1931	New York (A).....	80,000
1932	New York (A).....	75,000
1933	New York (A).....	50,000
1934	New York (A).....	35,000
1935	Boston (N).....	40,000
1938†	Brooklyn (N).....	15,000
Total.....		\$925,900

* Bought by Boston Americans from Baltimore and farmed to Providence (I). † Coach.

Ruth's share from ten world series amounted to \$41,445. In addition, he was reputed to have made \$1,000,000 from endorsements, barnstorming tours, movies and radio appearances.

Hickok Award to Rizzuto, Reynolds

Phil Rizzuto, New York Yankee shortstop, and Allie Reynolds, a pitcher for the same team, are past winners of the Ray Hickok Award, a \$10,000 diamond-studded jewel belt presented annually to the professional selected as the "athlete-of-the-year" in a nation-wide poll of sportswriters and sportscasters. Rizzuto won the prize in 1950 and Reynolds in 1951.

Cincinnati Post Legion Victor

The Robert E. Bentley Post 50 team of Cincinnati won its third American Legion junior baseball national championship at Denver, Colo., in 1952. Joe Hawk coached all three teams, gaining the other titles in 1944 and 1947.

MAJOR LEAGUE STATISTICS

Source: American League and National League Service Bureaus.

lf—Left-field foul line; cf—center field; rf—right-field foul line. (2)—Indicates double-header scheduled.

American League

Club, nickname and grounds	Distance, feet			Seating capacity	Record attendance	Visiting club	Date
	lf	cf	rf				
Boston Red Sox—Fenway Park.....	315	420	302	34,817	41,766	New York (2).....	Aug. 12, 1934
Chicago White Sox—Comiskey Park.....	352	415	352	47,400	53,940	New York (night).....	June 8, 1951
Cleveland Indians—Municipal Stadium.....	321	410	321	73,500	82,781	Philadelphia (2).....	June 20, 1948
Detroit Tigers—Briggs Stadium.....	340	440	325	52,954	58,369	New York (2).....	July 20, 1947
New York Yankees—Yankee Stadium.....	301	461	296	67,000	81,841	Boston (2).....	May 30, 1938
Philadelphia Athletics—Shibe Park.....	334	440	331	33,223	38,800	Washington (2).....	July 13, 1931
St. Louis Browns—Sportsman's Park.....	351	422	310	33,853	34,625	New York.....	Oct. 1, 1944
Washington Senators—Griffith Stadium.....	408	426	328	29,731	35,563	New York (2).....	July 4, 1936

National League

Boston Braves—Braves Field.....	337	390	319	41,000	47,123	Philadelphia (2).....	May 22, 1932
Brooklyn Dodgers—Ebbets Field.....	343	405	297	32,111	41,209	New York (2).....	May 30, 1934
Chicago Cubs—Wrigley Field.....	355	400	353	38,710	46,965	Pittsburgh (2).....	May 31, 1948
Cincinnati Reds—Crosley Field.....	328	387	366	30,000	36,961	Pittsburgh (2).....	Apr. 27, 1947
New York Giants—Polo Grounds.....	279	483	257	55,000	60,747	Brooklyn (2).....	May 31, 1937
Philadelphia Phillies—Shibe Park.....	334	440	331	33,223	40,720	Brooklyn (2).....	May 11, 1947
Pittsburgh Pirates—Forbes Field.....	335	457	300	33,730	43,586	New York (2).....	Aug. 31, 1938
St. Louis Cardinals—Sportsman's Park.....	351	422	310	33,853	45,770	Chicago (2).....	July 12, 1931

Chart of 1952 Major League Pennant Races

Monday Morning Standings

American League	APRIL 21 28	MAY				JUNE					JULY				AUGUST				SEPTEMBER				
		5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25	1	8	15	22	29
New York.....	5 5	5	4	4	4	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cleveland.....	1 3	2	1	1	1	1	3	5	4	3	3	2	4	2	2	2	2	2	2	2	2	2	2
Chicago.....	6 6	6	6	6	6	4	5	4	2	3	2	3	5	5	5	5	5	5	5	4	3	3	3
Philadelphia.....	7 8	7	7	7	7	7	6	6	7	7	6	6	6	6	5	6	6	4	4	6	4	4	4
Washington.....	4 4	3	2	2	2	3	4	5	5	5	4	5	3	4	4	4	4	5	6	4	6	6	5
Boston.....	2 1	1	3	3	2	2	1	2	3	2	5	4	2	3	3	3	3	3	3	3	5	5	6
St. Louis.....	3 2	4	4	5	5	6	7	7	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
Detroit.....	8 7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

National League	APRIL 21 28	MAY				JUNE					JULY				AUGUST				SEPTEMBER				
		5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25	1	8	15	22	29
Brooklyn.....	1 1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
New York.....	6 4	5	5	5	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
St. Louis.....	4 8	5	5	5	5	5	4	4	4	4	3	3	3	3	3	3	3	2	3	3	3	3	3
Philadelphia.....	7 6	7	6	6	6	3	3	3	3	3	5	5	5	4	4	4	4	5	4	4	4	4	4
Chicago.....	3 3	4	3	3	3	3	3	3	3	3	4	4	4	4	5	5	5	5	5	5	5	5	5
Cincinnati.....	2 2	3	3	3	4	4	5	5	5	5	6	6	6	7	7	7	7	7	7	6	6	6	6
Boston.....	5 6	6	7	7	7	7	7	6	7	7	7	7	7	6	6	6	6	6	6	7	7	7	7
Pittsburgh.....	8 8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

TOP ALL-TIME HOME-RUN HITTERS

AMERICAN LEAGUE		NATIONAL LEAGUE	
	Total		Total
Babe Ruth.....	714	Mel Ott.....	511
Jimmy Foxx.....	534	Johnny Mize.....	355
Lou Gehrig.....	493	Rogers Hornsby.....	302
Joe DiMaggio.....	361	Chuck Klein.....	300
Hank Greenberg.....	331	Ralph Kiner.....	294
Ted Williams.....	323	Fred (Cy) Williams..	251
Al Simmons.....	307	Hack Wilson.....	244
Bob Johnson.....	288	Wally Berger.....	242
Rudy York.....	277	Dolph Camilli.....	237
Joe Gordon.....	253	Gabby Hartnett.....	236
Goose Goslin.....	248	BMI Nicholson.....	233

NOTE—Several of the players were active in both leagues. Combined totals are credited to the league in which they served longest.

Cain, Feller in Hurling Masterpiece

With each pitching a one-hitter, Bob Cain of the Browns bested Bob Feller of the Cleveland Indians, 1-0, in a night game at St. Louis on April 23, 1952. It was the lowest-hit encounter in the history of the American League and the second time in modern baseball that each pitcher allowed the opposition only one safety. On July 4, 1906, Mordecai (Three-fingered) Brown of Chicago and Lefty Leifield of Pittsburgh permitted one hit apiece as the Cubs beat the Pirates, 1-0.

On May 2, 1917, Jim Vaughn of Chicago and Fred Toney of Cincinnati each hurled a no-hitter through nine innings. The Reds reached Vaughn for two hits and a run in the tenth to win, 1-0, as Toney tossed a ten-inning no-hitter.

MAJOR LEAGUE RECORDS FOR 1952

American League

Final Standing of the Clubs

	New York	Cleveland	Chicago	Philadelphia	Washington	Boston	St. Louis	Detroit	Wor.	Lost	Percentage	Games Behind
New York	—	12	14	13	15	14	13	95	59	.617	—	2
Cleveland	10	—	14	13	12	13	15	16	93	61	.604	14
Chicago	8	8	—	11	13	10	14	17	81	73	.526	14
Philadelphia	9	9	11	—	9	10	14	17	79	75	.513	16
Washington	7	10	9	13	—	14	14	11	78	76	.506	17
Boston	8	9	12	8	8	—	11	16	76	78	.494	19
St. Louis	8	7	8	8	11	—	14	64	90	.416	31	
Detroit	9	6	5	5	11	6	8	—	50	104	.325	45
Lost	59	61	73	75	76	78	90	104	—	—	—	

National League

Final Standing of the Clubs

	Brooklyn	New York	St. Louis	Philadelphia	Chicago	Cincinnati	Boston	Pittsburgh	Wor.	Lost	Percentage	Games Behind
Brooklyn	—	8	11	10	13	17	18	19	96	57	.627	—
New York	14	—	12	10	12	16	13	15	92	62	.597	4½
St. Louis	11	10	—	12	11	12	15	17	88	66	.571	8½
Philadelphia	12	12	10	—	12	13	16	87	67	.565	9½	
Chicago	9	10	11	10	—	13	10	14	77	77	.500	19½
Cincinnati	5	6	10	9	—	12	13	16	69	85	.448	27½
Boston	3	9	7	9	12	9	—	15	64	89	.418	32
Pittsburgh	3	7	5	6	8	6	7	—	42	112	.273	54½
Lost	57	62	66	67	77	85	89	112	—	—		

THE LEADERS

American League

Batting—Ferris Fain, Philadelphia	327
Runs batted in—Al Rosen, Cleveland	105
Hits—Nelson Fox, Chicago	192
Doubles—Ferris Fain, Philadelphia	43
Triples—Bobby Avila, Cleveland	11
Home runs—Larry Doby, Cleveland	32
Runs—Larry Doby, Cleveland	104
Stolen bases—Orestes Minoso, Chicago	22
Pitching—Bobby Shantz, Phila. (W 24, L 7)	774
Strikeouts—Allie Reynolds, New York	161

National League

Batting—Stan Musial, St. Louis	336
Runs batted in—Hank Sauer, Chicago	121
Hits—Stan Musial, St. Louis	194
Doubles—Stan Musial, St. Louis	42
Triples—Bobby Thomson, New York	15
Home runs—Ralph Kiner, Pittsburgh Hank Sauer, Chicago	37
Runs—Solly Hemus, St. Louis Stan Musial, St. Louis	105
Stolen bases—Peewee Reese, Brooklyn	30
Pitching—Eddie Yuhas, St. Louis (W 12, L 2)	857
Strikeouts—Warren Spahn, Boston	182

Unofficial Averages

INDIVIDUAL BATTING

	g	ab	r	h	br	rbi	avg.
Fain, Philadelphia	145	538	82	176	2	58	.327
Mitchell, Cleveland	134	511	61	165	5	59	.323
Mantle, New York	142	549	94	171	23	87	.311
Kell, Detroit-Boston	114	428	53	133	7	55	.311
Woodling, New York	123	408	58	127	12	63	.311
Goodman, Boston	138	514	79	157	4	56	.305
Rosen, Cleveland	148	567	101	171	28	105	.302
Avila, Cleveland	160	597	102	179	7	44	.300
Fox, Chicago	152	648	76	192	0	39	.296
Robinson, Chicago	155	594	80	176	22	104	.296
DiMaggio, Boston	128	486	81	143	6	33	.294
Bauer, New York	141	553	86	162	17	74	.293
Priddy, Detroit	75	275	37	80	4	20	.291
Nieman, St. Louis	131	478	66	138	18	74	.289
Groth, Detroit	141	522	56	149	3	51	.285
Runnels, Washington	152	564	70	157	1	63	.283
Courtney, St. Louis	117	410	38	116	5	50	.283
White, Boston	115	381	36	107	10	48	.281
Jensen, N. Y.-Wash.	150	589	82	165	10	81	.280
Collins, New York	121	428	69	120	18	59	.280
Clark, Philadelphia	147	589	96	159	13	62	.279
Minoso, Chicago	129	383	68	108	5	46	.278
Wert, Det.-St. Louis	122	415	68	115	23	70	.277
Dropo, Detroit	152	591	69	163	29	96	.276
Doby, Cleveland	140	519	104	143	32	106	.278
Berra, New York	142	534	97	146	30	98	.273
Majeski, Phila.-Cleve.	69	170	21	46	2	29	.271
Dyck, St. Louis	122	402	60	108	15	64	.269
Hoderlein, Washington	72	209	16	56	0	17	.268
Martin, New York	109	363	32	97	3	33	.267
Simpson, Cleveland	62	185	23	44	4	16	.267
Rodriguez, Chicago	145	545	66	145	10	63	.266
Stewart, Chicago	124	407	55	108	1	40	.265
Evers, Detroit-Boston	91	228	23	60	5	30	.265
Lepcio, Boston	108	402	53	106	14	58	.264
Vollmer, Boston	84	273	34	72	5	27	.264
Philley, Philadelphia	90	260	35	68	11	49	.264
McDougald, New York	151	586	80	154	7	71	.263
	152	555	65	146	11	77	.263

INDIVIDUAL BATTING

	g	ab	r	h	br	rbi	avg.
Musial, St. Louis	154	578	105	194	21	91	.336
Clark, Philadelphia	47	165	20	52	1	16	.335
Baumholtz, Chicago	103	409	59	133	4	37	.326
Kluszewski, Cincinnati	135	496	62	159	16	84	.321
Irvin, New York	46	126	10	39	4	20	.310
Robinson, Brooklyn	149	510	104	157	19	76	.308
Shuba, Brooklyn	94	256	41	78	9	40	.305
Snider, Brooklyn	144	534	81	162	21	92	.303
Schoendienst, St. Louis	152	620	89	187	7	66	.302
Brown, Phila.-Chicago	75	225	26	68	4	26	.302
Dark, New York	151	588	91	177	14	73	.301
Fondy, Chicago	145	554	69	166	10	66	.300
Slaughter, St. Louis	140	510	73	153	11	101	.300
Rigney, New York	60	90	15	27	1	14	.300
Addis, Chicago	93	292	38	86	1	20	.295
Burgess, Philadelphia	109	367	50	108	6	55	.294
Atwell, Chicago	107	360	36	105	2	31	.292
Lockman, New York	154	606	95	176	13	58	.290
Ennis, Philadelphia	151	592	99	171	20	107	.289
Gordon, Boston	144	522	69	151	25	77	.289
Watkins, Philadelphia	146	498	60	144	2	49	.289
Pafko, Brooklyn	150	551	76	158	19	85	.287
Lowrey, St. Louis	132	374	48	107	1	48	.286
Groat, Pittsburgh	95	383	38	109	1	28	.285
H. Rice, St. Louis	98	295	37	84	7	45	.285
Ramazzotti, Chicago	50	183	26	52	1	12	.284
Adams, Cincinnati	154	637	85	180	6	48	.283
Logan, Boston	117	456	56	129	4	42	.283
Ashburn, Philadelphia	154	613	93	173	1	42	.282
Mueller, New York	126	456	61	128	12	49	.281
Adcock, Cincinnati	117	378	43	105	13	53	.278
Hammer, Philadelphia	151	595	74	165	17	85	.277
Serena, Chicago	122	390	49	107	15	61	.274
Lopata, Philadelphia	57	179	25	49	4	27	.274
Abrams, Bklyn.-Cinc.	81	168	24	46	2	13	.274
Garagiola, Pittsburgh	118	344	35	94	8	53	.273
Nicholson, Philadelphia	55	188	17	24	6	19	.273
Reese, Brooklyn	149	559	96	152	6	59	.272
Thomson, New York	153	608	89	164	24	108	.270
Metkovich, Pittsburgh	126	374	30	101	7	40	.270

American League (Cont.) Individual Batting (Cont.)

	g	ab	r	h	hr	rbi	avg.
Easter, Cleveland.....	127	437	64	115	31	97	.263
Boone, Cleveland.....	104	316	57	83	7	46	.263
Mize, New York.....	78	137	9	36	4	29	.263
Zernial, Philadelphia.....	145	550	76	144	29	100	.262
Baker, Washington.....	79	293	27	69	0	33	.262
Delsing, St. L.-Detroit.....	125	411	48	107	3	48	.260
Male, Wash.-Chicago.....	131	451	47	117	16	59	.259
Rivera, St. L.-Chicago.....	150	538	73	139	7	48	.258
Throneberry, Boston.....	55	241	38	80	5	23	.258
Marsh, Wash.-St. Louis.....	56	271	29	70	2	28	.258
V. Stephens, Boston.....	92	295	34	75	7	46	.254
Rizzuto, New York.....	152	578	89	146	2	43	.253
Michaels, Wash.-St. L.-Phi.	131	452	63	114	5	50	.252
Mullin, Detroit.....	97	254	29	64	7	34	.252
Wright, St. L.-Chicago.....	89	198	21	50	2	28	.252
Vernon, Washington.....	154	569	70	143	10	80	.251
Astroth, Philadelphia.....	104	336	24	84	1	34	.250
Moss, St. Louis.....	51	116	11	29	3	12	.250
Thomas, Philadelphia.....	74	118	24	29	6	16	.250
Young, St. Louis.....	148	575	59	143	4	39	.249
Carrasquel, Chicago.....	100	359	36	89	1	42	.248
Souchock, Detroit.....	92	266	40	66	13	45	.248
Tebbetts, Cleveland.....	42	101	4	25	1	8	.248
Marlon, St. Louis.....	66	188	16	46	2	19	.247
Hitchcock, Philadelphia.....	119	407	45	100	1	53	.248
Joost, Philadelphia.....	146	541	94	132	20	74	.244
Kolloway, Detroit.....	65	172	19	42	2	28	.244
Federoff, Detroit.....	74	231	14	56	0	14	.242
Hatfield, Detroit.....	131	465	49	112	3	28	.241
Suder, Philadelphia.....	74	228	22	58	1	20	.241
Gernert, Boston.....	102	365	58	88	19	64	.241
Lollar, Chicago.....	132	375	36	90	13	50	.240
Kryhoski, St. Louis.....	111	342	38	82	11	41	.240
Lenhardt, Bos.-Det.-St. L.	93	294	41	70	11	42	.238
Shen, Wash.....	62	253	41	61	0	23	.238
Boren, Wash.-New York.....	105	324	40	75	23	23	.237
Busby, Chi.-Wash.....	145	550	64	130	2	45	.236

PITCHING RECORDS

	g	ip	h	bb	so	w	l	avg.
Consuegra, Wash.....	30	73	79	27	19	6	0	1.000
Shantz, Philadelphia.....	33	230	230	63	152	24	7	.774
Gorman, New York.....	12	61	83	21	31	6	2	.750
Raschl, New York.....	22	174	90	127	16	6	2	.727
Reynolds, New York.....	35	244	194	95	161	20	8	.714
Lemon, Cleveland.....	42	310	236	105	131	22	11	.687
Garcla, Cleveland.....	46	291	234	87	143	22	11	.687
Lopat, New York.....	29	149	127	63	66	10	5	.687
Dorish, Chicago.....	39	93	65	41	46	8	4	.667
Wynn, Cleveland.....	42	286	238	132	163	23	12	.667
Sain, New York.....	35	143	139	37	56	11	6	.647
Madison, St. L.-Det.....	41	93	94	59	41	5	3	.625
Scheib, Philadelphia.....	30	158	153	50	42	11	7	.611
Shea, Washington.....	21	155	136	86	69	11	7	.611
Rogovin, Chicago.....	32	229	223	79	121	14	9	.609
Brisale, Cleveland.....	42	82	69	34	28	3	2	.600
Dobson, Chicago.....	29	201	164	61	100	14	10	.583
Marrore, Wash.....	22	184	170	53	78	11	8	.579
Slaeter, St. L.-Wash.....	18	66	65	35	23	4	3	.571
Ferriack, Washington.....	27	51	53	11	27	4	3	.571
Benton, Boston.....	35	162	137	57	17	10	5	.567
Pierce, Chicago.....	33	255	214	79	143	18	12	.558
Nixon, Boston.....	23	103	115	61	50	5	4	.558
Morgan, New York.....	16	94	88	33	36	5	4	.558
Henry, Boston.....	13	77	75	36	22	4	4	.556
Cain, St. Louis.....	29	170	167	61	69	12	10	.545
Glissom, Chicago.....	28	166	154	78	91	12	10	.545
Palge, St. Louis.....	46	137	121	58	89	12	10	.545
Masterson, Bos.-Wash.....	29	177	171	83	90	10	9	.526
McDermott, Boston.....	35	162	135	92	117	10	5	.526
Byrd, Philadelphia.....	37	228	243	115	115	15	10	.500
Parnell, Boston.....	33	215	207	88	106	12	12	.500
Moreno, Washington.....	26	147	154	54	61	9	9	.500
Newhouser, Detroit.....	24	146	142	46	54	9	9	.500
Kuzawa, New York.....	28	133	113	63	66	8	8	.500
Gromek, Cleveland.....	29	123	107	28	64	7	7	.500
Scarborough, Bos.-N. Y.	37	110	106	60	42	6	6	.500
Brodowski, Boston.....	20	114	111	60	42	5	5	.500
Suarez, Det.....	42	117	117	58	44	4	4	.500
Kretlow, Chicago.....	19	79	52	36	63	4	4	.500
Newsom, Wash.-Phila.....	24	60	54	32	26	4	4	.500
Porterfield, Wash.....	31	231	222	85	79	13	14	.481
Bearden, St. Louis.....	34	151	161	78	43	7	8	.467
A. Kellner, Phila.....	34	231	224	88	105	12	14	.462

CLUB BATTING

	g	r	h	hr	rbi	ab	avg.	was shut out
New York.....	154	727	1412	129	669	52	.267	7
Cleveland.....	155	763	1359	148	720	43	.262	9
Boston.....	154	688	1342	113	624	58	.256	26
Philadelphia.....	155	664	1305	89	627	54	.253	12
St. Louis.....	155	604	1342	82	571	31	.251	14
Chicago.....	156	610	1337	80	561	61	.251	12
Detroit.....	155	556	1278	102	523	27	.243	18
Washington.....	157	598	1281	60	552	49	.239	11

National League (Cont.) Individual Batting (Cont.)

	g	ab	r	h	hr	rbi	avg.
Sauer, Chicago.....	151	567	89	153	37	121	.270
Campanella, Brooklyn.....	129	469	74	126	22	98	.269
Hemus, St. Louis.....	151	570	105	153	15	62	.268
Wystock, Cinc.-Phila.....	128	426	58	113	2	47	.265
Marshall, Bos.-Cinc.....	128	464	67	121	10	58	.261
Thompson, New York.....	128	422	67	110	17	67	.261
Keshorek, Pittsburgh.....	98	322	28	84	0	15	.261
D. Rice, St. Louis.....	146	492	43	128	11	85	.260
Thorn, Boston.....	81	292	30	75	3	25	.260
Cox, Brooklyn.....	118	455	56	118	6	34	.259
Hermanski, Chicago.....	98	271	28	70	4	34	.258
Crowe, Boston.....	73	217	25	56	4	20	.258
Hodges, Brooklyn.....	153	506	88	130	32	102	.256
Sisler, Cinc.-St. L.....	130	445	51	114	13	64	.256
Johnson, St. Louis.....	94	282	28	72	2	34	.255
Seminick, Cincinnati.....	108	338	38	86	14	50	.254
Williams, New York.....	138	641	70	137	13	54	.253
Borkowski, Cincinnati.....	126	376	42	95	4	24	.253
Rhodes, New York.....	127	376	34	44	10	35	.250
Jones, Philadelphia.....	147	543	60	135	18	72	.249
Furillo, Brooklyn.....	134	425	50	105	8	58	.247
G. Bell, Pittsburgh.....	131	468	53	116	16	58	.246
Merson, Pittsburgh.....	111	398	41	98	5	38	.246
Kiner, Pittsburgh.....	149	515	90	126	37	87	.245
Yvars, New York.....	66	151	15	37	4	18	.245
Ryan, Philadelphia.....	154	577	81	142	49	244	.244
McMillan, Cincinnati.....	154	540	132	7	56	244	.244
Mayo, Philadelphia.....	50	119	13	29	1	4	.244
Glaviano, St. Louis.....	80	162	30	39	3	19	.241
Wilson, New York.....	62	112	9	27	2	16	.241
Mathews, Boston.....	145	538	80	128	25	68	.238
Morgan, Brooklyn.....	67	191	36	45	7	16	.236
Cooper, Boston.....	101	346	32	81	10	55	.234
McCullough, Pittsburgh.....	66	172	10	40	1	15	.233
Jethroe, Boston.....	151	608	79	140	1	58	.232
Miksis, Chicago.....	103	383	39	93	19	38	.230
Torgeson, Boston.....	122	381	47	88	5	34	.231

PITCHING RECORDS

	g	ip	h	bb	so	w	l	ptc.
Connelly, New York.....	11	32	22	25	21	5	0	1.000
Yuhas, St. Louis.....	53	96	90	34	39	12	2	.857
Corwin, New York.....	21	67	68	36	35	6	1	.857
Roe, Brooklyn.....	27	159	163	39	83	11	2	.846
Wilhelm, New York.....	71	160	130	63	106	15	3	.833
Roberts, Philadelphia.....	39	330	292	45	148	28	7	.800
Black, Brooklyn.....	66	142	102	41	83	15	4	.789
Brazle, St. Louis.....	46	108	75	44	55	12	5	.706
Erskine, Brooklyn.....	33	207	166	71	130	14	6	.700
Maglie, New York.....	35	216	189	75	112	18	8	.692
Hearn, New York.....	37	224	208	97	89	14	7	.687
Labine, Brooklyn.....	24	76	76	47	40	4	4	.687
Johnson, Boston.....	29	120	100	32	45	6	3	.687
Miller, St. Louis.....	12	88	66	28	64	6	3	.687
Schultz, Chicago.....	29	74	63	51	30	6	3	.687
Ridzik, Philadelphia.....	24	93	74	37	43	4	2	.667
Branca, Brooklyn.....	16	61	52	21	26	4	2	.667
Simmons, Philadelphia.....	28	201	171	70	141	14	8	.636
Haaker, Chicago.....	33	185	142	32	83	15	9	.625
Konstanty, Phila.....	42	80	87	21	17	8	3	.625
Loes, Brooklyn.....	39	187	153	71	114	13	8	.619
Minnr, Chicago.....	28	181	180	54	61	14	9	.609
Keslo, New York.....	41	166	154	48	67	10	7	.588
Brechen, St. Louis.....	25	100	82	28	54	7	5	.583
Rush, Chicago.....	34	251	215	80	157	17	13	.567
Raffensberger, Cinc.....	38	248	263	44	94	17	13	.567
Mizell, St. Louis.....	30	190	171	100	146	10	8	.566
Wade, Brooklyn.....	37	180	166	94	117	11	9	.550
Staley, St. Louis.....	35	241	238	51	94	17	14	.548
Perkowski, Cincinnati.....	36	174	163	44	82	10	5	.545
Smith, Cincinnati.....	53	121	109	41	74	12	11	.522
Jansen, New York.....	34	167	183	46	74	11	11	.500
Rutherford, Brooklyn.....	22	97	96	29	29	7	7	.500
Boyer, St. Louis.....	23	110	108	47	44	6	6	.500
Wilks, Pittsburgh.....	44	72	64	31	24	5	5	.500
Chambers, St. Louis.....	26	98	110	35	47	4	4	.500
Hatten, Chicago.....	13	50	65	25	15	4	4	.500
Drews, Philadelphia.....	33	228	212	51	98	14	15	.483
Meyer, Philadelphia.....	37	230	235	55	133	14	15	.481
Surkert, Boston.....	31	215	224	52	123	13	13	.480
Van Cuyk, Brooklyn.....	33	225	234	69	122	12	12	.480
Van Cuyk, Brooklyn.....	23	98	104	60	66	5	8	.480
Hansen, Philadelphia.....	43	80	76	28	18	5	6	.450
Wehmeier, Cincinnati.....	33	190	197	103	85	9	11	.450

National League Pennant Winners

Year	Club	Manager	Won	Lost	Pct.	Year	Club	Manager	Won	Lost	Pct.
1876	Chicago	Albert G. Spalding	52	14	.788	1914*	Boston	George T. Stallings	94	59	.614
1877	Boston	Harry Wright	31	17	.646	1915	Philadelphia	Patrick J. Moran	90	62	.592
1878	Boston	Harry Wright	41	19	.683	1916	Brooklyn	Wilbert Robinson	94	60	.610
1879	Providence	George Wright	59	25	.702	1917	New York	John J. McGraw	98	56	.636
1880	Chicago	Adrian C. Anson	67	17	.798	1918	Chicago	Fred L. Mitchell	84	45	.651
1881	Chicago	Adrian C. Anson	56	28	.667	1919*	Cincinnati	Patrick J. Moran	96	44	.686
1882	Chicago	Adrian C. Anson	55	29	.655	1920	Brooklyn	Wilbert Robinson	93	61	.604
1883	Boston	John F. Morrill	63	35	.643	1921*	New York	John J. McGraw	94	59	.614
1884	Providence	Frank C. Bancroft	84	28	.750	1922*	New York	John J. McGraw	93	61	.604
1885	Chicago	Adrian C. Anson	87	25	.777	1923	New York	John J. McGraw	95	58	.621
1886	Chicago	Adrian C. Anson	90	34	.726	1924	New York	John J. McGraw	93	60	.608
1887	Detroit	W. H. Watkins	79	45	.637	1925*	Pittsburgh	William B. McKechnie	95	58	.621
1888	New York	James J. Mutrie	84	47	.641	1926*	St. Louis	Rogers Hornsby	89	65	.578
1889	New York	James J. Mutrie	83	43	.659	1927	Pittsburgh	Owen J. Bush	94	60	.610
1890	Brooklyn	William H. McGunnigle	86	43	.667	1928	St. Louis	William B. McKechnie	95	59	.617
1891	Boston	Frank G. Selee	87	51	.630	1929	Chicago	Joseph V. McCarthy	98	54	.645
1892	Boston	Frank G. Selee	102	48	.680	1930	St. Louis	Charles E. Street	92	62	.597
1893	Boston	Frank G. Selee	86	43	.667	1931*	St. Louis	Charles E. Street	101	53	.656
1894	Baltimore	Edward H. Hanlon	89	39	.695	1932	Chicago	Charles J. Grimm	90	64	.584
1895	Baltimore	Edward H. Hanlon	87	43	.669	1933*	New York	William H. Terry	91	61	.599
1896	Baltimore	Edward H. Hanlon	90	39	.698	1934*	St. Louis	Frank F. Frisch	95	58	.621
1897	Boston	Frank G. Selee	93	39	.705	1935	Chicago	Charles J. Grimm	100	54	.649
1898	Boston	Frank G. Selee	102	47	.685	1936	New York	William H. Terry	92	62	.597
1899	Brooklyn	Edward H. Hanlon	88	42	.677	1937	New York	William H. Terry	95	57	.625
1900	Brooklyn	Edward H. Hanlon	82	54	.603	1938	Chicago	Charles L. Hartnett	89	63	.586
1901	Pittsburgh	Fred C. Clarke	90	49	.647	1939	Cincinnati	William B. McKechnie	97	57	.630
1902	Pittsburgh	Fred C. Clarke	103	36	.741	1940*	Cincinnati	William B. McKechnie	100	53	.654
1903	Pittsburgh	Fred C. Clarke	91	49	.650	1941	Brooklyn	Leo E. Durocher	100	54	.649
1904	New York	John J. McGraw	106	47	.693	1942*	St. Louis	William H. Southworth	106	48	.688
1905*	New York	John J. McGraw	105	48	.686	1943	St. Louis	William H. Southworth	105	49	.682
1906	Chicago	Frank L. Chance	116	36	.763	1944*	St. Louis	William H. Southworth	105	49	.682
1907*	Chicago	Frank L. Chance	107	45	.704	1945	Chicago	Charles J. Grimm	98	56	.636
1908*	Chicago	Frank L. Chance	99	55	.643	1946*	St. Louis	Edwin H. Dyer	98	58	.628
1909*	Pittsburgh	Fred C. Clarke	110	42	.724	1947	Brooklyn	Burton E. Shotton	94	60	.610
1910	Chicago	Frank L. Chance	104	50	.675	1948	Boston	William H. Southworth	91	62	.595
1911	New York	John J. McGraw	99	54	.647	1949	Brooklyn	Burton E. Shotton	97	57	.630
1912	New York	John J. McGraw	103	48	.682	1950	Philadelphia	Edwin M. Sawyer	91	63	.591
1913	New York	John J. McGraw	101	51	.664	1951	New York	Leo E. Durocher	98	59	.624
						1952	Brooklyn	Charles W. Dresen	96	57	.627

* World Series winner.

American League Pennant Winners

Year	Club	Manager	Won	Lost	Pct.	Year	Club	Manager	Won	Lost	Pct.
1901	Chicago	Clark C. Griffith	83	53	.610	1927*	New York	Miller J. Huggins	110	44	.714
1902	Philadelphia	Connie Mack	83	53	.610	1928*	New York	Miller J. Huggins	101	53	.656
1903*	Boston	James J. Collins	91	47	.659	1929*	Philadelphia	Connie Mack	104	46	.693
1904	Boston	James J. Collins	95	59	.617	1930*	Philadelphia	Connie Mack	102	52	.662
1905	Philadelphia	Connie Mack	92	56	.622	1931	Philadelphia	Connie Mack	107	45	.704
1906*	Chicago	Fielder A. Jones	93	58	.616	1932*	New York	Joseph V. McCarthy	107	47	.695
1907	Detroit	Hugh A. Jennings	92	58	.613	1933	Washington	Joseph E. Cronin	99	53	.651
1908	Detroit	Hugh A. Jennings	90	63	.588	1934	Detroit	Gordon S. Cochrane	101	53	.656
1909	Detroit	Hugh A. Jennings	98	54	.645	1935*	Detroit	Gordon S. Cochrane	93	58	.616
1910*	Philadelphia	Connie Mack	102	48	.680	1936*	New York	Joseph V. McCarthy	102	51	.667
1911*	Philadelphia	Connie Mack	101	50	.669	1937*	New York	Joseph V. McCarthy	102	52	.662
1912*	Boston	J. Garland Stahl	105	47	.691	1938*	New York	Joseph V. McCarthy	99	53	.651
1913*	Philadelphia	Connie Mack	96	57	.627	1939*	New York	Joseph V. McCarthy	106	45	.702
1914	Philadelphia	Connie Mack	99	53	.651	1940	Detroit	Delmar D. Baker	90	64	.584
1915*	Boston	William F. Carrigan	101	50	.669	1941*	New York	Joseph V. McCarthy	101	53	.656
1916*	Boston	William F. Carrigan	91	63	.591	1942	New York	Joseph V. McCarthy	103	51	.669
1917*	Chicago	Clarence H. Rowland	100	54	.649	1943*	New York	Joseph V. McCarthy	98	56	.636
1918*	Boston	Edward G. Barrow	75	51	.595	1944	St. Louis	James L. Sewell	89	65	.578
1919	Chicago	William Gleason	88	52	.629	1945*	Detroit	Stephen F. O'Neill	88	65	.575
1920*	Cleveland	Tris E. Speaker	98	56	.636	1946	Boston	Joseph E. Cronin	104	50	.675
1921	New York	Miller J. Huggins	98	55	.641	1947*	New York	Stanley R. Harris	97	57	.630
1922	New York	Miller J. Huggins	94	60	.610	1948*	Cleveland	Louis Boudreau	97	58	.626
1923*	New York	Miller J. Huggins	98	54	.645	1949*	New York	Charles D. Stengel	97	57	.630
1924*	Washington	Stanley R. Harris	92	62	.597	1950*	New York	Charles D. Stengel	98	56	.636
1925	Washington	Stanley R. Harris	96	55	.636	1951*	New York	Charles D. Stengel	98	56	.636
1926	New York	Miller J. Huggins	91	63	.591	1952*	New York	Charles D. Stengel	95	59	.617

* World Series winner.

National League Batting Champions

(Based on minimum of 100 games played.)

Year	Avg.	Year	Avg.	Year	Avg.
1876—R. Barnes, Chi.....	403	1901—J. Burkett, St. L.....	382	1927—Paul G. Waner, Pitts.....	380
1877—J. L. White, Bos.....	385	1902—C. H. Beaumont, Pitts.....	357	1928—Rogers Hornsby, Bos.....	387
1878—A. Dairymple, Mil.....	356	1903—J. P. Wagner, Pitts.....	355	1929—Frank J. O'Doul, Phila.....	398
1879—A. C. Anson, Chi.....	407	1904—J. P. Wagner, Pitts.....	349	1930—Wm. H. Terry, N. Y.....	401
1880—G. F. Gore, Chi.....	365	1905—J. B. Seymour, Cin.....	377	1931—C. J. Hafey, St. L.....	349
1881—A. C. Anson, Chi.....	399	1906—J. P. Wagner, Pitts.....	339	1932—F. J. O'Doul, Bklyn.....	368
1882—D. Brouthers, Buf.....	367	1907—J. P. Wagner, Pitts.....	350	1933—C. H. Klein, Phila.....	368
1883—D. Brouthers, Buf.....	371	1908—J. P. Wagner, Pitts.....	354	1934—P. G. Waner, Pitts.....	362
1884—J. O'Rourke, Buf.....	350	1909—J. P. Wagner, Pitts.....	339	1935—F. Vaughan, Pitts.....	385
1885—R. Connor, N. Y.....	371	1910—S. N. Magee, Phila.....	331	1936—P. G. Waner, Pitts.....	373
1886—M. J. Kelly, Chi.....	388	1911—J. P. Wagner, Pitts.....	374	1937—J. M. Medwick, St. L.....	374
1887—A. C. Anson, Chi.....	421	1912—H. Zimmerman, Chi.....	332	1938—E. N. Lombardi, Cin.....	342
1888—A. C. Anson, Chi.....	343	1913—J. Daubert, Bklyn.....	350	1939—J. R. Mize, St. L.....	349
1889—D. Brouthers, Bos.....	373	1914—J. Daubert, Bklyn.....	329	1940—D. Garmes, Pitts.....	355
1890—J. Glasscock, N. Y.....	336	1915—L. Doyle, N. Y.....	320	1941—H. P. Reiser, Bklyn.....	343
1891—W. Hamilton, Phila.....	338	1916—H. Chase, Cin.....	339	1942—E. N. Lombardi, Bos.....	330
1892—C. Childs, Cleve.....	335	1917—E. J. Roush, Cin.....	341	1943—S. F. Musial, St. L.....	357
1893—D. Brouthers, Bklyn.....	335	1918—Z. D. Wheat, Bklyn.....	335	1944—F. Walker, Bklyn.....	357
1893—Hugh Duffy, Bos.....	378	1919—E. J. Roush, Cin.....	321	1945—P. J. Cavarretta, Chicago.....	355
1894—Hugh Duffy, Bos.....	438	1920—Rogers Hornsby, St. L.....	370	1946—S. F. Musial, St. L.....	365
1895—J. Burkett, Cleve.....	423	1921—Rogers Hornsby, St. L.....	397	1947—H. W. Walker, Phila.....	363
1896—J. Burkett, Cleve.....	410	1922—Rogers Hornsby, St. L.....	401	1948—S. F. Musial, St. L.....	376
1897—W. Keeler, Balt.....	432	1923—Rogers Hornsby, St. L.....	384	1949—J. R. Robinson, Bklyn.....	342
1898—W. Keeler, Balt.....	379	1924—Rogers Hornsby, St. L.....	424	1950—S. F. Musial, St. L.....	346
1899—E. J. Delahanty, Phila.....	408	1925—Rogers Hornsby, St. L.....	403	1951—S. F. Musial, St. L.....	355
1900—J. P. Wagner, Pitts.....	380	1926—Eugene Hargrave, Cin.....	353	1952—S. F. Musial, St. Louis.....	336

American League Batting Champions

(Based on minimum of 100 games played.)

1901—N. Lajoie, Phila.....	405	1919—T. R. Cobb, Det.....	384	1936—L. B. Appling, Chi.....	388
1902—E. J. Delahanty, Wash.....	376	1920—G. H. Sisler, St. L.....	407	1937—C. L. Gehringer, Det.....	371
1903—N. Lajoie, Cleve.....	355	1921—H. E. Heilmann, Det.....	394	1938—J. E. Foss, Bos.....	349
1904—N. Lajoie, Cleve.....	381	1922—G. H. Sisler, St. L.....	420	1939—J. P. DiMaggio, N. Y.....	381
1905—Elmer Flick, Cleve.....	306	1923—H. E. Heilmann, Det.....	403	1940—J. P. DiMaggio, N. Y.....	352
1906—G. Stone, St. L.....	358	1924—G. H. Ruth, N. Y.....	378	1941—T. S. Williams, Bos.....	406
1907—T. R. Cobb, Det.....	350	1925—H. E. Heilmann, Det.....	393	1942—T. S. Williams, Bos.....	356
1908—T. R. Cobb, Det.....	324	1926—H. E. Manush, Det.....	378	1943—L. B. Appling, Chi.....	328
1909—T. R. Cobb, Det.....	377	1927—H. E. Heilmann, Det.....	398	1944—L. Boudreau, Cleve.....	327
1910—T. R. Cobb, Det.....	385	1928—L. A. Goslin, Wash.....	379	1945—G. H. Stirnweiss, N. Y.....	309
1911—T. R. Cobb, Det.....	420	1929—L. A. Fonseca, Cleve.....	369	1946—J. B. Vernon, Wash.....	353
1912—T. R. Cobb, Det.....	410	1930—A. H. Simmons, Phila.....	381	1947—T. S. Williams, Bos.....	343
1913—T. R. Cobb, Det.....	390	1931—A. H. Simmons, Phila.....	390	1948—T. S. Williams, Bos.....	369
1914—T. R. Cobb, Det.....	368	1932—D. Alexander, Det-Bos.....	367	1949—G. C. Kell, Det.....	343
1915—T. R. Cobb, Det.....	369	1933—J. E. Foss, Phila.....	356	1950—W. D. Goodman, Bos.....	354
1916—T. Speaker, Cleve.....	386	1934—H. L. Gehrig, N. Y.....	363	1951—Ferris Fain, Phila.....	344
1917—T. R. Cobb, Det.....	383	1935—C. S. Myer, Wash.....	349	1952—Ferris Fain, Phila.....	327
1918—T. R. Cobb, Det.....	382				

National Baseball Congress Champions

1935—Bismarck (N. D.) Corwin-Churchill
1936—Duncan (Okla.) Halliburtons
1937—Enid (Okla.) Eason Oilers
1938—Buford (Ga.) Bona Allens
1939—Duncan (Okla.) Halliburtons
1940—Enid (Okla.) Champlins
1941—Enid (Okla.) Champlins
1942—Wichita (Kans.) Boeing Bombers
1943—Camp Wheeler (Ga.) Spokes
1944—Sherman Field (Kans.) Flyers
1945—Enid (Okla.) Army Air Field
1946—St. Joseph (Mich.) Autos
1947—Ft. Wayne (Ind.) General Electrics
1948—Ft. Wayne (Ind.) General Electrics
1949—Ft. Wayne (Ind.) General Electrics
1950—Ft. Wayne (Ind.) Capeharts
1951—Slinton (Texas) Plymouth Oilers
1952—Fort Myer (Va.) Colonials

Feller's Pitching Masterpieces

NO-HIT GAMES					
Date	Opponent	Score	SO	BB	
April 16, 1940.....	Chicago.....	1-0	8	5	
April 30, 1946.....	New York.....	1-0	11	5	
July 1, 1951.....	Detroit.....	2-1	5	3	
ONE-HIT GAMES					
April 20, 1938.....	St. Louis.....	9-0	6	6	
May 25, 1939.....	Boston.....	11-0	10	5	
June 27, 1939.....	Detroit.....	5-0	13	6	
July 12, 1940.....	Philadelphia.....	1-0	13	2	
Sept. 26, 1941.....	St. Louis.....	3-2	6	7	
Sept. 19, 1945.....	Detroit.....	2-0	7	4	
July 31, 1946.....	Boston.....	4-1	9	9	
Aug. 8, 1946.....	Chicago.....	5-0	5	3	
April 22, 1947.....	St. Louis.....	5-0	10	1	
May 2, 1947.....	Boston.....	2-0	10	6	
April 23, 1952.....	St. Louis.....	0-1	5	2	

Major League Individual All-Time Records

Highest batting average, season—Hugh Duffy, Boston (N), 1894	438	Most 3-base hits, season—J. Owen Wilson, Pittsburgh (N), 1912	36
Highest batting average (10 or more years)—Ty Cobb, Detroit and Philadelphia (A), 1905-28	367	Most 2-base hits—Tris E. Speaker, Boston, Cleveland, Washington, Philadelphia (A), 1907-28	793
Most years batting over .300—Ty Cobb	23	Most 2-base hits, season—Earl W. Webb, Boston (A), 1931	67
Most hits—Ty Cobb	4,191	Most singles—Ty Cobb	3,052
Most hits, season—George Sisler, St. Louis (A), 1920	257	Most singles, season (modern record)—Lloyd Waner, Pittsburgh (N), 1927	198
Most consecutive hits, game—Wilbert Robinson, Baltimore (N), 1892	7	Most runs—Ty Cobb	2,244
Most successive hits—Frank Higgins, Boston (A), 1938; Walt Dropo, Detroit, 1952	12	Most runs batted in—Babe Ruth ...	2,209
Most consecutive games batted safely—Joe DiMaggio, New York (A), May 15 to July 16, 1941, inclusive	56	Most runs batted in, season—Hack Wilson, Chicago (N), 1930	190
Most long hits—Babe Ruth, Boston and New York (A), Boston (N), 1914-35 (506 2b, 136 3b, 714 home runs)	1,356	Most runs batted in, single game—James L. Bottomley, St. Louis (N) vs. Brooklyn, Sept. 16, 1924	12
Most total bases—Ty Cobb	5,863	Most games played—Ty Cobb	3,033
Most total bases, season—Babe Ruth, New York (A), 1921	457	Most consecutive games played—Lou Gehrig, New York (A). Streak started June 1, 1925, and stopped May 2, 1939	2,130
Most total bases, game—Bobby Lowe, Boston (N), 1894; Ed Delahanty, Philadelphia (N), 1896; Gil Hodges, Brooklyn, 1950	17	Longest service as player—Eddie Collins, Philadelphia and Chicago (A), 1906-30; Bobby Wallace, Cleveland (N), St. Louis (A), St. Louis (N), 1894-1918 ..	25 years
Most home runs—Babe Ruth	714	Most times at bat—Ty Cobb	11,429
Most home runs, season—Babe Ruth, New York (A), 1927	60	Most bases on balls—Babe Ruth ...	2,056
Most home runs, 1 game—Lowe, Boston (N), 1894; Delahanty, Phila. (N), 1896; Gehrig, N. Y. (A), 1932; Klein, Phila. (N), 1936 (10 innings); Seerey, Chicago (A), 1948 (11 innings); Hodges, Brooklyn, 1950	4	Most bases on balls, season—Babe Ruth, 1923	170
Most 3-base hits—Sam Crawford, Cincinnati (N), 1899-1902; Detroit (A), 1903-17	312	Most bases on balls, game (modern record)—Jimmy Foxx Boston (A), 1938	6
		Most stolen bases—Ty Cobb	892
		Most stolen bases, season (modern record)—Ty Cobb, Detroit (A), 1915	96
		Fewest strikeouts, season (150 or more games)—Joe Sewell, Cleveland (A), 1925, 1929	4
		Most consecutive years manager, one club—Connie Mack, Phila. (A), 1901-50 ..	50

PITCHING

Most games—Cy Young (516 in National League, 390 in American League), 1890-1911	906	Most games won, season (modern record)—Jack Chesbro, New York (A), 1904 ..	41
Most games won—Cy Young, Cleveland (N), 1890-98; St. Louis (N), 1899-1900; Boston (A), 1901-08; Cleveland (A), 1909-11 (part); Boston (N), 1911 (part)	511	Most consecutive games won, season—Tim Keefe, New York (N), 1888; Rube Marquard, New York (N), 1912	19
Most complete games, season—Jack Chesbro, New York (A), 1904	48	Most shutout games—Walter Johnson, Washington (A), 1907-27	113
Most games, season (modern record)—Jim Konstanty, Philadelphia (N), 1950 ..	74	Most shutout games, season—Grover Alexander, Philadelphia (N), 1916	16
Most innings, season—Ed Walsh, Chicago (A), 1908	464	Most consecutive shutout innings—Walter Johnson, 1913	56
Lowest earned-run average, season—Ferdie Schupp, New York (N), 1916	0.90	Most strikeouts—Walter Johnson ...	3,497
Fewest hits in two consecutive games—John Vander Meer, Cincinnati (N), 1938 (both no-hit games)	0	Most strikeouts, season (modern record)—Bobby Feller, Cleveland (A), 1946 ..	348
		Most strikeouts in 9 innings (1901 to date)—Bobby Feller, Cleveland (A) vs. Detroit, Oct. 2, 1938	18

RECORD OF MAJOR LEAGUE ALL-STAR GAMES

Date	Winning league and pitcher	Runs	Losing league and pitcher	Runs	Where held	Paid attendance	Receipts
July 6, 1933	American (Gomez).....	4	National (Hallahan).....	2	Chicago (A).....	49,200	\$ 51,203.50*
July 10, 1934	American (Harder).....	9	National (Mungo).....	7	New York (N).....	48,363	52,982.00
July 8, 1935	American (Gomez).....	4	National (Walker).....	1	Cleveland (A).....	69,812	82,172.00
July 7, 1936	National (J. Dean).....	4	American (Grove).....	3	Boston (N).....	25,556	24,588.80
July 7, 1937	American (Gomez).....	8	National (J. Dean).....	3	Washington (A).....	31,391	28,475.18
July 6, 1938	National (Vander Meer).....	4	American (Gomez).....	1	Cincinnati (N).....	27,067	38,469.05
July 11, 1939	American (Bridges).....	3	National (Lee).....	1	New York (A).....	62,892	75,701.00
July 9, 1940	National (Derringer).....	4	American (Ruffing).....	0	St. Louis (N).....	32,373	36,723.03
July 8, 1941	American (Smith).....	7	National (Passeau).....	5	Detroit (A).....	54,674	63,267.08
July 6, 1942	American (Chandler).....	3	National (M. Cooper).....	1	New York (N).....	33,694	86,102.98†
July 13, 1943	American (Leonard).....	5	National (M. Cooper).....	3	Philadelphia (A).....	31,938	65,674.00†
July 11, 1944	National (Raffensberger).....	7	American (Hughson).....	1	Pittsburgh (N).....	29,589	81,275.00
1945—No game.							
July 9, 1946	American (Feller).....	12	National (Passeau).....	0	Boston (A).....	34,906	89,071.00
July 8, 1947	American (Shea).....	2	National (Sain).....	1	Chicago (N).....	41,123	105,314.90
July 13, 1948	American (Raschi).....	5	National (Schmitz).....	2	St. Louis (A).....	34,009	93,447.07
July 12, 1949	American (Trucks).....	11	National (Newcombe).....	7	Brooklyn (N).....	32,577	79,225.02
July 11, 1950	†National (Blackwell).....	4	American (Gray).....	3	Chicago (A).....	46,127	126,179.51
July 10, 1951	National (Maglie).....	8	American (Lopat).....	3	Detroit (A).....	52,075	124,294

* An additional \$5,175 was received for radio rights. † Additional funds were received from other sources. ‡ Fourteen innings.

1952 ALL-STAR GAME

At Shibe Park, Philadelphia, July 8

AMERICAN LEAGUE

Manager—Casey Stengel, New York Yankees

	ab	r	h	po	a
DiMaggio, cf.....	2	0	1	1	0
Doby, cf.....	0	0	0	0	0
Bauer, rf.....	3	0	1	2	0
Jensen, rf.....	0	0	0	0	0
Mitchell, lf.....	1	0	0	1	0
cMinoso, lf.....	1	1	1	0	0
Rosen, 3b.....	1	1	0	3	1
Berra, c.....	2	0	0	6	0
E. Robinson, 1b.....	2	0	1	1	0
Avila, 2b.....	2	0	1	0	0
Rizzuto, ss.....	2	0	0	1	0
Raschi, p.....	0	0	0	0	0
aMcDougal.....	1	0	0	0	0
Lemon, p.....	1	0	0	0	0
Shantz, p.....	0	0	0	0	0
Totals.....	18	2	5	15	1

NATIONAL LEAGUE

Manager—Leo Durocher, New York Giants

	ab	r	h	po	a
Lockman, 1b.....	3	0	0	5	0
J. Robinson, 2b.....	3	1	2	2	2
Musial, cf.....	2	1	0	1	0
Sauer, lf.....	2	1	1	0	0
Campanella, c.....	1	0	0	5	1
Slaughter, rf.....	2	0	1	0	1
Thomson, 3b.....	2	0	0	1	3
Hamner, ss.....	1	0	0	0	0
Simmons, p.....	0	0	0	0	0
bReese.....	1	0	0	0	0
Rush, p.....	1	0	0	0	0
Totals.....	18	3	3	15	7

aGrounded out for Raschi in third. bFlied out for Simmons in third. cDoubled for Mitchell in fourth.

American League.....	0	0	0	2	0-2
National League.....	1	0	0	2	0-3

Called, rain.

Errors—None. Runs batted in—J. Robinson, E. Robinson, Avila, Sauer, 2. Two-base hits—DiMaggio, Minoso, Slaughter. Home runs—J. Robinson, Sauer, Double play—Hamner, J. Robinson and Lockman. Left on bases—American 3, National 3.

Bases on balls—Off Simmons 1 (DiMaggio), Rush 1 (Rosen), Lemon 2 (Campanella, Hamner). Struck out—By Simmons 3 (Bauer, Mitchell, E. Robinson), Rush 1 (DiMaggio), Raschi 3 (Musial, Sauer, Slaughter), Shantz 3 (Lockman, J. Robinson, Musial).

Pitches—Off Simmons 1 in 3 innings, Rush 4 in 2, Raschi 1 in 2, Lemon 2 in 3, Shantz 0 in 1. Runs and earned runs—Off Rush 2 and 2, Raschi 1 and 1,

Lemon 2 and 2. Hit by pitcher—By Lemon (Musial). Winning pitcher—Rush. Losing pitcher—Lemon. Umpires—Barlick (N), plate; Berry (A), 1b; Boggs (N), 2b; Summers (A), 3b; Warnke (N), rf; Soar (A), lf. Time—1:25. Attendance—32,785. Receipts—\$108,762.

Trucks Tosses Two No-hitters

Virgil Trucks of the Detroit Tigers became the third player in the history of the major baseball leagues to pitch two no-hitters in one season when he beat New York, 1-0, at the Yankee Stadium on Aug. 25, 1952. Trucks' first no-hitter found the Washington Senators the victims, 1-0, at Detroit on May 15. The right-hander hurled his pair of classics in day games.

Johnny Vander Meer of the Cincinnati Reds and Allie Reynolds of the Yankees are the only other pitchers with a pair of no-hitters for a single season. Vander Meer made his mark in successive games in 1938 and Reynolds turned the trick in 1951. Both Vander Meer and Reynolds tossed their second no-hitter at night.

Carl Erskine of the Brooklyn Dodgers was the only other major leaguer to pitch a no-hitter in 1952. Erskine, a right-hander, defeated the Chicago Cubs, 5-0, at Ebbets Field on June 19 in a day encounter. He faced only twenty-eight men and missed his chance for a perfect game when he walked Willie Ramsdell, opposing relief pitcher, on four pitches.

Juvenile Honors to Norwalk, Stamford

Norwalk, Conn., won the Little League baseball championship by defeating Monongahela, Pa., 4 to 3, in the 1952 world series final for 8-to-12-year-old players at Williamsport, Pa. Stamford, Conn., beat West Des Moines, Iowa., 2-0, in the Little-Bigger League title game for players between 13 and 15 years of age at Trenton, N. J.

BASEBALL'S HALL OF FAME
Cooperstown, N. Y.

Lifetime Records of Immortals

Year elected	Name and playing years	Games	Batting Average	Year elected	Name and playing years	Games	Batting Average
1939	Anson, Adrian C., 1876-97.....	2253	.339	1945	Robinson, Wilbert, 1886-1902.....	1316	.280
1945	Bresnahan, Roger, 1897-1915.....	1410	.279	1936	Ruth, G. H. (Babe), 1914-35.....	2503	.342
1945	Brouthers, Dan, 1879-96.....	1653	.348	1937	Speaker, T. E., 1907-28.....	2789	.344
1946	Burkett, Jesse C., 1890-1905.....	2063	.342	1939	Sisler, George H., 1915-30.....	2055	.340
1946	Chance, Frank L., 1898-1914.....	1232	.297	1946	Tinker, Joseph B., 1902-16.....	1641	.264
1945	Clarke, Fred C., 1894-1915.....	2204	.315	1948	Traynor, Harold J., 1920-37.....	1941	.320
1936	Cobb, Tyrus R., 1905-28.....	3033	.367	1936	Wagner, John P., 1897-1917.....	2785	.329
1947	Cochrane, Gordon S., 1925-37.....	1482	.320	1952	Waner, Paul G., 1926-45.....	2549	.333
1939	Collins, Edward T., 1906-30.....	2826	.333	1937	Wright, George, 1876-82.....	315	.251
1945	Collins, James J., 1895-1908.....	1718	.294				
1939	Comiskey, C. A., 1882-94.....	1383	.269				
1945	Delahanty, E. J., 1888-1903.....	1825	.346				
1945	Duffy, Hugh, 1888-1906.....	1722	.330				
1946	Evers, John J., 1902-19.....	1776	.270				
1939	Ewing, Wm. B., 1880-97.....	1280	.311				
1951	Fox, James E., 1925-1945.....	2317	.325				
1947	Frisch, Frank F., 1919-37.....	2311	.316				
1939	Gehrig, H. Louis, 1923-39.....	2164	.340				
1949	Gehring, Charles L., 1924-42.....	2323	.321				
1952	Heilmann, Harry E., 1914-32.....	2146	.342				
1942	Hornsby, Rogers, 1915-37.....	2259	.358				
1945	Jennings, H. A., 1891-1908.....	1264	.314				
1939	Keeler, Wm. H., 1892-1910.....	2124	.345				
1945	Kelly, Michael J., 1878-93.....	1493	.315				
1937	Lajoie, Napoleon, 1896-1916.....	2475	.338				
1946	McCarthy, Thomas, 1884-96.....	1268	.294				
1937	McGraw, John J., 1891-1906.....	1082	.334				
1937	Mack, Connie, 1886-96.....	736	.249				
1945	O'Rourke, James, 1876-94.....	1750	.315				
1951	Ott, Melvin T., 1926-1947.....	2730	.304				

PITCHERS

Year elected	Name and playing years	Won	Lost
1938	Alexander, Grover C., 1911-30....	373	208
1949	Brown, Mordecai, 1903-16.....	239	131
1946	Chesbro, John D., 1899-1909.....	199	128
1946	Griffith, Clark C., 1891-1908.....	237	140
1947	Grove, Robert M., 1925-41.....	300	141
1947	Hubbell, Carl O., 1928-43.....	253	154
1936	Johnson, Walter P., 1907-27.....	414	276
1946	McGinnity, Joseph J., 1899-1908..	248	141
1936	Mathewson, Christopher, 1900-16..	373	188
1949	Nichols, Charles A., 1890-1906...	360	202
1948	Pennock, Herbert J., 1912-34.....	239	161
1946	Plank, Edward S., 1901-17.....	324	190
1939	Radbourne, Charles G., 1880-91..	308	191
1946	Waddell, George E., 1897-1910....	203	143
1946	Walsh, Edward A., 1904-17.....	195	126
1937	Young, Denton T., 1890-1911.....	511	315

SELECTED FOR MERITORIOUS SERVICE

Morgan G. Bulkeley (1937), Alexander J. Cartwright (1938), Henry Chadwick (1938), William A. Cummings (1939), B. Bancroft Johnson (1937), Judge Kenesaw M. Landis (1944), Albert G. Spalding (1939).

HONOR ROLLS (All named in 1946)

EXECUTIVES—E. S. Barnard, Edward G. Barrow, John Bruce, John T. Brush, Barney Dreyfuss, Charles Ebbets, August Herrmann, John A. Heydler, J. A. (Bob) Quinn, Arthur H. Soden, Nicholas Young.
MANAGERS—William Carrigan, Edward Hanlon, Miller J. Huggins, Frank G. Selee, John M. Ward.
UMPIRES—Thomas Connelly, William Dinneen, Robert Emslie, William Evans, John Gaffney, Timothy Hurst, Honest John Kelly, William Klem, Thomas Lynch, Silk O'Loughlin, Jack Sheridan.
WRITERS—Walter Barnes, Harry E. Cross, William Hanna, Frank Hough, Sid Mercer, T. H. Murnane, Frank Richter, Cy Sanborn, John B. Sheridan, William Slocum, George Tilden, Joe Vila.

BABE RUTH'S MAJOR LEAGUE HOME-RUN RECORD

(A) American League; (N) National League											
Regular Season				World Series				All-Star Game			
Year	Club	Home runs		Year	Club	Home runs		Year	Club	Home runs	
1914	Boston (A).....	0		1915	Boston (A).....	0		1933	American.....	1	
1915	Boston (A).....	4		1916	Boston (A).....	0		1934	American.....	0	
1916	Boston (A).....	3		1918	Boston (A).....	0					
1917	Boston (A).....	2		1921	New York (A)....	1			Total.....	1	
1918	Boston (A).....	11		1922	New York (A)....	0					
1919	Boston (A).....	29		1923	New York (A)....	3			Grand total.....	730	
1920	New York (A)....	54		1926	New York (A)....	4					
1921	New York (A)....	59		1927	New York (A)....	2					
1922	New York (A)....	35		1928	New York (A)....	3					
1923	New York (A)....	41		1932	New York (A)....	2					
1924	New York (A)....	46									
1925	New York (A)....	25									
			Total.....	714			Total.....	15			

Each member of the Cleveland Indians entitled to a full winning share in the 1948 world series with the Boston Braves received \$6,772.05, the record for the classic.

Minor League Baseball

1952 Pennant Winners

Asterisk (*) indicates playoffs determine championship.

OPEN CLASS

League and champion	Playoff winner
Pacific Coast—Hollywood	No playoffs

CLASS AAA

American Association—Milwaukee	Kansas City
International—Montreal	Rochester

CLASS AA

Southern Assn.—Chattanooga	Memphis
Texas—Dallas	Shreveport*

CLASS A

Eastern—Albany (N. Y.)	Binghamton (N. Y.)
South Atlantic—	
Columbia (S. C.)	Montgomery (Ala.)
Western—Denver	Denver
Western Int'l—Victoria (B. C.)	No playoffs

CLASS B

Big State—Temple (Tex.)	Tyler*
Carolina—Raleigh	Reidsville
Florida Int'l—Miami	Miami*
Gulf Coast—Port Arthur (Tex.)	Harlingen (Tex.)
Inter-State—Hagerstown (Md.)	Hagerstown
Piedmont—	
Norfolk, Va. (1st half)	Richmond (Va.)
Norfolk, Va. (2d half)	Richmond (Va.)
Three-I—Evansville (Ind.)	Terre Haute (Ind.)
Tri-State—Gastonia (N. C.)	Charlotte (N. C.)

CLASS C

Arizona-Texas—Juarez (Mexico)	No playoffs
California—Fresno	Fresno
Cotton States—Meridian (Miss.)	Meridian
Evangeline—Crowley (La.)	Crowley
Longhorna—Odessa (Tex.)	Midland (Tex.)*
Northern—Superior (Wis.)	Superior
Pioneer—Pocatello (Idaho)	Idaho Falls
Provincial—St. Hyacinthe (Quebec)	Quebec
Southwest Int'l—Tijuana (Mexico)	No playoffs
Western Assn.—	
Muskogee, Okla. (1st half)	Joplin
Joplin, Mo. (2d half)	Joplin
W. Texas-N. Mexico—Clovis (N. M.)	Amarillo (Tex.)

CLASS D

Alabama-Florida—Ozark (Ala.)	Ozark
Appalachian—Johnson City (Tenn.)	Weich (W. Va.)
Coastal Plain—Kinston (N. C.)	Edenton (N. C.)
Florida State—DeLand	Palatka
Georgia-Fla.—Valdosta (Ga.)	Albany (Ga.)
Georgia State—Eastman	Vidalia
Kansas-Okla.—Mo.—Iola (Kan.)	Miami (Okla.)
Kitty—Fulton (Ky.)	Madisonville (Ky.)
Miss.-Ohio Valley—Danville (Ill.)	Decatur (Ill.)
Mountain States—Hazard (Ky.)	Harian (Ky.)
No. Car. State—High Point-Thomasville	
Mooreville	Mooreville
Pony—Hamilton (Ont.)	Jamestown (N. Y.)
Sooner State—McAlester (Okla.)	McAlester*
West. Carolina—Lincolnton (N. C.)	Shelby
Wisconsin State—Sheboygan	No playoffs

1952 JUNIOR WORLD SERIES

Rochester (IL) vs. Kansas City (AA)

*1st game—Kansas City 5, Rochester 2
 *2d game—Rochester 5, Kansas City 3
 *3d game—Kansas City 6, Rochester 2
 *4d game—Kansas City 9, Rochester 0†
 5th game—Rochester 10, Kansas City 5
 6th game—Rochester 8, Kansas City 4
 7th game—Rochester 6, Kansas City 4

* At Kansas City. † Five Innings.

FINAL STANDING OF THE CLUBS

	Won	Lost	Pct.
Rochester Red Wings	4	3	.571
Kansas City Blues	3	4	.429

The West beat the East, 7-3, in the twentieth annual Negro All-Star baseball game at Chicago last year. A crowd of 18,279 saw the West notch its twelfth victory in the series.

Final 1952 Standings

(Regular season)

PACIFIC COAST LEAGUE (OPEN)

	W.	L.	Pct.		W.	L.	Pct.
Hollywood	109	71	.606	San Diego	88	92	.489
Oakland	104	76	.578	Los Angeles	87	93	.483
Seattle	96	84	.533	San Francisco	78	102	.433
Portland	92	88	.511	Sacramento	66	114	.367

AMERICAN ASSOCIATION (AAA)

Milwaukee	101	53	.656	Louisville	77	77	.500
Kansas City	89	65	.578	Indianapolis	75	79	.487
St. Paul	80	74	.519	Columbus	68	85	.445
Minneapolis	79	75	.513	Charleston	46	107	.301

INTERNATIONAL LEAGUE (AAA)

Montreal	95	56	.629	Buffalo	71	83	.461
Syracuse	88	66	.571	Baltimore	70	84	.455
Rochester	80	74	.519	Ottawa	65	85	.433
Toronto	78	76	.506	Springfield	65	88	.425

SOUTHERN ASSOCIATION (AA)

Chattanooga	86	66	.566	New Orleans	80	75	.516
Atlanta	82	72	.532	Nashville	73	79	.480
Mobile	80	73	.5229	Little Rock	68	85	.445
*Memphis	81	74	.5226	Birmingham	64	90	.416

* Beat New Orleans in fourth-place playoff game.

TEXAS LEAGUE (AA)

Dallas	92	69	.572	San Antonio	79	82	.491
Fort Worth	86	75	.534	Tulsa	78	83	.484
Shreveport	84	77	.522	Beaumont	77	84	.478
Okla. City	82	79	.509	Houston	66	95	.410

EASTERN LEAGUE (A)

Albany	82	54	.603	Elmira	72	68	.514
Binghamton	77	60	.562	Scranton	66	73	.475
Reading	75	63	.543	Hartford	59	79	.428
Schenectady	73	65	.529	Williamsport	48	90	.348

SOUTH ATLANTIC (SALLY) LEAGUE (A)

Columbia	100	54	.649	Charleston	78	75	.510
Columbus	87	67	.565	Savannah	74	79	.484
Montgomery	86	68	.558	Jacksonville	69	85	.448
Macon	83	71	.539	Augusta	38	116	.247

WESTERN LEAGUE (A)

Denver	88	66	.571	Pueblo	81	73	.526
Colo. Springs	87	67	.565	Wichita	67	87	.435
Omaha	86	68	.558	Lincoln	67	87	.435
Soux City	83	71	.539	Des Moines	57	97	.370

WESTERN INTERNATIONAL LEAGUE (A)

Victoria	94	55	.631	Yakima	73	79	.480
Spokane	91	64	.587	Lewiston	71	82	.464
Vancouver	72	69	.511	*Tri-City	67	78	.462
Salem	73	78	.483	Wenatchee	58	94	.382

* Represents Richland, Kennewick and Pasco, Wash.

1952 DIXIE SERIES

Memphis (SA) vs. Shreveport (TL)

*1st game—Shreveport 8, Memphis 3
 *2d game—Memphis 14, Shreveport 3
 2d game—Shreveport 2, Memphis 1
 4th game—Memphis 3, Shreveport 2
 5th game—Memphis 9, Shreveport 1
 *6th game—Memphis 8, Shreveport 5

* At Memphis.

FINAL STANDING OF THE CLUBS

	Won	Lost	Pct.
Memphis Chicks	4	2	.667
Shreveport Sports	2	4	.333

Brooklyn.....	0	0	0	0	1	0	J	0	0	0	0	0	0	0	0	0	0	0	0
Boston.....	0	0	0	0	1	0	J	0	0	0	0	0	0	0	0	0	0	0	0

(Called, darkness)

Runs batted in—Olson, Boeckel.

Two-base hits—Mann, Holke, Oeschger. Three-base hits—Cruise. Stolen bases—Myers, Hood. Sacrifices—Hood, Powell, Cruise, Holke, O'Neill, Oeschger. Double plays—Olson and Konetchy; Oeschger, Holke and Gowdy. Left on bases—Boston 16, Brooklyn 11. Earned runs—Boston 1, Brooklyn 1. Struck out by Cadore 7 (Pick, Mann, Cruise, Gowdy, Oeschger 3), Oeschger 7 (Olson, Neis 2, Johnston, Hood, Elliott, Cadore). Bases on balls—Off Cadore 5 (Powell 3, Mann, Cruise), Oeschger 4 (Wheat, Hood, Konetchy, Krueger). Wild pitch—Oeschger. Umpires—McCormick and Hart. Time—3:50. Attendance—2,000.

THE OLYMPIC GAMES

(W)—Site of Winter Games. (S)—Site of Summer Games.

1896—Athens	1912—Stockholm	1928—Amsterdam (S)	1936—Berlin (S)
1900—Paris	1920—Antwerp	1932—Lake Placid (W)	1948—St. Moritz (W)
1904—St. Louis	1924—Chamonix (W)	1932—Los Angeles (S)	1948—London (S)
1906—Athens	1924—Paris (S)	1936—Garmisch-Parten-	1952—Oslo (W)
1908—London	1928—St. Moritz (W)	kirchen (W)	1952—Helsinki (S)

THE first Olympic Games of which there is record occurred in 776 B.C. and consisted of one event, a great foot race of about 200 yards held on a plain by the River Alpheus (now the Ruphla) just outside the little town of Olympia in Greece. It was from that date that the Greeks began to keep their calendar by "Olympiads," the four-year spans between the celebrations of the famous games. There was a religious as well as an athletic significance to the ancient games and the shrines, temples and sacred fires within the Olympic enclosure were the scenes of worship all through the year whereas the Olympic Games, at the height of their popularity, never lasted more than five days and were held only once every four years.

The competition was entirely amateur at the start and the only prizes were laurel wreaths. Only free Greek citizens were allowed to compete and they had to undergo a strict training course that lasted ten months. But civic rivalry led to trickery and professionalism and the

games became degraded after some centuries. When Rome conquered Greece, the Roman emperors turned the Olympic Games from patriotic, religious and athletic festivals into carnivals and circuses. They dragged on malodorously until they were finally halted by decree of Emperor Theodosius I of Rome in A.D. 394.

The modern Olympic Games, which started in Athens in 1896, are the result of the devotion of a French educator, Baron Pierre de Coubertin, to the idea that, since boys and athletics have gone together down the ages, education and athletics might well go hand-in-hand toward a better international understanding. He planned a revival of the ancient Olympic Games on a world-wide basis and succeeded in getting nine nations to send athletes to the first of the modern games in 1896. Since then more than 29,000 athletes representing 58 nations have competed in the games.

Interrupted for the second time by war, the modern Olympic Games were resumed at London in 1948.

OLYMPIC GAMES CHAMPIONS, 1896-1952

Source: United States Olympic Association

TRACK AND FIELD—MEN

60-Meter Run

1900	A. E. Kraenzlein, United States.....	7s.
1904	Archie Hahn, United States.....	7s.

100-Meter Run

1896	T. E. Burke, United States.....	12s.
1900	F. W. Jarvis, United States.....	10.8s.
1904	Archie Hahn, United States.....	11s.
1906	Archie Hahn, United States.....	11.2s.
1908	R. E. Walker, South Africa.....	10.8s.
1912	R. C. Craig, United States.....	10.8s.
1920	C. W. Paddock, United States.....	10.8s.
1924	H. M. Abrahams, Great Britain.....	10.6s.
1928	Percy Williams, Canada.....	10.8s.
1932	Eddie Tolan, United States.....	10.3s.
1936	Jesse Owens, United States.....	10.3s.*
1948	Harrison Dillard, United States.....	10.3s.
1952	Lindy Remigino, United States.....	10.4s.

* With the wind.

200-Meter Run

1900	J. W. B. Tewksbury, United States.....	22.2s.
1904	Archie Hahn, United States.....	21.6s.

1908	R. Kerr, Canada.....	22.4s.
1912	R. C. Craig, United States.....	21.7s.
1920	Allan Woodring, United States.....	22s.
1924	J. V. Scholz, United States.....	21.6s.
1928	Percy Williams, Canada.....	21.8s.
1932	Eddie Tolan, United States.....	21.2s.
1936	Jesse Owens, United States.....	20.7s.
1948	Meivn E. Patton, United States.....	21.1s.
1952	Andrew Stanfield, United States.....	20.7s.

400-Meter Run

1896	T. E. Burke, United States.....	54.2.
1900	M. W. Long, United States.....	49.4.
1904	H. L. Hillman, United States.....	49.2.
1906	Paul Pilgrim, United States.....	53.2.
1908	W. Halswelle, Great Britain (walkover).....	50s.
1912	C. D. Reidpath, United States.....	48.2s.
1920	B. G. D. Rudd, South Africa.....	49.6s.
1924	E. H. Liddell, Great Britain.....	47.6s.
1928	Ray Barbuti, United States.....	47.8s.
1932	William Carr, United States.....	46.2s.
1936	Archie Williams, United States.....	46.5s.
1948	Arthur Wint, Jamaica, B.W.I.....	46.2s.
1952	George Rhoden, Jamaica, B. W. I.....	45.9s.

800-Meter Run

1896	E. H. Flack, Great Britain.....	2m.11s.
1900	A. E. Tysoe, Great Britain.....	2m.1.4s.
1904	J. D. Lightbody, United States.....	1m.56s.
1906	Paul Pilgrim, United States.....	2m.1.2s.
1908	M. W. Sheppard, United States.....	1m.52.8s.
1912	J. E. Meredith, United States.....	1m.51.9s.
1920	A. G. Hill, Great Britain.....	1m.53.4s.
1924	D. G. A. Lowe, Great Britain.....	1m.52.4s.
1928	D. G. A. Lowe, Great Britain.....	1m.51.8s.
1932	Thomas Hampson, Great Britain.....	1m.49.8s.
1936	John Woodruff, United States.....	1m.52.9s.
1948	Malvin Whitfield, United States.....	1m.49.2s.
1952	Malvin Whitfield, United States.....	1m.49.2s.

1,500-Meter Run

1896	E. H. Flack, Great Britain.....	4m.33.2s.
1900	C. Bennett, Great Britain.....	4m.6s.
1904	J. D. Lightbody, United States.....	4m.5.4s.
1906	J. D. Lightbody, United States.....	4m.12s.
1908	M. W. Sheppard, United States.....	4m.3.4s.
1912	A. N. S. Jackson, Great Britain.....	3m.56.8s.
1920	A. G. Hill, Great Britain.....	4m.1.8s.
1924	Paavo Nurmi, Finland.....	3m.53.6s.
1928	H. E. Larva, Finland.....	3m.53.2s.
1932	Luigi Beccali, Italy.....	3m.51.2s.
1936	J. E. Lovelock, New Zealand.....	3m.47.8s.
1948	Henri Eriksson, Sweden.....	3m.49.8s.
1952	Joseph Barthel, Luxemburg.....	3m.45.2s.

5,000-Meter Run

1912	H. Kolehmainen, Finland.....	14m.36.6s.
1920	J. Guillemot, France.....	14m.55.6s.
1924	Paavo Nurmi, Finland.....	14m.31.2s.
1928	Willie Ritola, Finland.....	14m.38s.
1932	Lauri Lehtinen, Finland.....	14m.30s.
1936	Gunnar Hockert, Finland.....	14m.22.2s.
1948	Gaston Reiff, Belgium.....	14m.17.6s.
1952	Emil Zatopek, Czechoslovakia.....	14m.6.6s.

5-Mile Run

1906	H. Hawtrey, Great Britain.....	26m.26.2s.
1908	E. R. Voigt, Great Britain.....	25m.11.2s.

10,000-Meter Run

1912	H. Kolehmainen, Finland.....	31m.20.8s.
1920	Paavo Nurmi, Finland.....	31m.45.8s.
1924	Willie Ritola, Finland.....	30m.23.2s.
1928	Paavo Nurmi, Finland.....	30m.18.8s.
1932	Janusz Kusocinski, Poland.....	30m.11.4s.
1936	Ilmari Salminen, Finland.....	30m.15.4s.
1948	Emil Zatopek, Czechoslovakia.....	29m.59.6s.
1952	Emil Zatopek, Czechoslovakia.....	29m.17s.

Marathon

1896	S. Loues, Greece.....	2h.55m.20s.
1900	M. Teato, France.....	2h.59m.
1904	T. J. Hicks, United States.....	3h.28m.53s.
1906	W. J. Sherring, Canada.....	2h.51m.23.6s.
1908	John J. Hayes, United States.....	2h.55m.18.4s.
1912	K. K. McArthur, South Africa.....	2h.36m.54.8s.
1920	H. Kolehmainen, Finland.....	2h.32m.35.8s.
1924	A. O. Stenroos, Finland.....	2h.41m.22.6s.
1928	El Ouafi, France.....	2h.32m.57s.
1932	Juan Zabala, Argentina.....	2h.31m.36s.
1936	Kitei Son, Japan.....	2h.29m.19.2s.
1948	Delfo Cabrera, Argentina.....	2h.34m.51.6s.
1952	Emil Zatopek, Czechoslovakia.....	2h.23m.3.2s.

110-Meter Hurdles

1896	Curtis, United States.....	17.6s.
1900	A. E. Kraenzlein, United States.....	15.4s.
1904	F. W. Schule, United States.....	16s.
1906	R. G. Leavitt, United States.....	16.2s.
1908	Forrest Smithson, United States.....	15s.
1912	F. W. Kelly, United States.....	15.1s.

1920	E. J. Thomson, Canada.....	14.8s.
1924	D. C. Kinsey, United States.....	15s.
1928	S. Atkinson, South Africa.....	14.8s.
1932	George Saling, United States.....	14.6s.
1936	Forrest Towns, United States.....	14.2s.
1948	William Porter, United States.....	13.9s.
1952	Harrison Dillard, United States.....	13.7s.

200-Meter Hurdles

1900	A. E. Kraenzlein, United States.....	25.4s.
1904	H. L. Hillman, United States.....	24.6s.

400-Meter Hurdles

1900	J. W. B. Tewksbury, United States.....	57.6s.
1904	H. L. Hillman, United States.....	53s.
1908	C. J. Bacon, United States.....	55s.
1920	F. F. Loomis, United States.....	54s.
1924	F. M. Taylor, United States.....	52.6s.
1928	Lord David Burghley, Great Britain.....	53.4s.
1932	Robert Tisdall, Ireland.....	51.8s.*
1936	Glenn Hardin, United States.....	52.4s.
1948	Roy Cochran, United States.....	51.1s.
1952	Charles Moore, United States.....	50.8s.

* Record not allowed.

2,500-Meter Steeplechase

1900	G. W. Orton, United States.....	7m.34s.
1904	J. D. Lightbody, United States.....	7m.39.6s.

3,000-Meter Steeplechase

1920	P. Hodge, Great Britain.....	10m.2.4s.
1924	Willie Ritola, Finland.....	9m.33.6s.
1928	T. A. Loukola, Finland.....	9m.21.8s.
1932	Volmari Iso-Hollo, Finland.....	10m.33.4s.*
1936	Volmari Iso-Hollo, Finland.....	9m.3.8s.
1948	Thure Sjoestrand, Sweden.....	9m.4.6s.
1952	Horace Ashenfelter, United States.....	8m.45.4s.

* About 3,450 meters—extra lap by error.

3,200-Meter Steeplechase

1908	A. Russell, Great Britain.....	10m.47.8s.
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4,000-Meter Steeplechase

1900	C. Rimmer, Great Britain.....	12m.58.4s.
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3,000-Meter Team

1912	United States.....	9 pts.
1920	United States.....	10 pts.
1924	Finland.....	8 pts.

3-Mile Team

1908	Great Britain.....	6 pts.
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8,000-Meter X-Country

1912	H. Kolehmainen, Finland.....	45m.11.6s.
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8,000-Meter X-Country Team

1912	Sweden.....	
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10,000-Meter X-Country

1920	Paavo Nurmi, Finland.....	27m.15s.
1924	Paavo Nurmi, Finland.....	32m.54.8s.

10,000-Meter X-Country Team

1912	Sweden.....	10 pts.
1920	Finland.....	10 pts.
1924	Finland.....	11 pts.

1,500-Meter Walk

1906	George V. Bonhag, United States.....	7m.12.6s.
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3,000-Meter Walk

1906	G. Stantics, Hungary.....	
1920	Ugo Frigerio, Italy.....	13m.14.2s.

3,500-Meter Walk

1908	G. E. Larner, Great Britain.....	14m.55s.
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10,000-Meter Walk

1912	G. H. Goulding, Canada.....	46m.28.4s
1920	Ugo Frigerio, Italy.....	48m.6.2s.
1924	Ugo Frigerio, Italy.....	47m.49s.
1948	John Mikaelsson, Sweden.....	45m.13.2s.
1952	John Mikaelsson, Sweden.....	45m.2.8s.

10-Mile Walk

1908	G. E. Larner, Great Britain.....	1h.15m.57.4s.
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50,000-Meter Walk

1932	Thomas W. Green, Great Britain.....	4h.50m.10s.
1936	Harold Whitlock, Great Britain.....	4h.30m.41.4s.
1948	John Ljunggren, Sweden.....	4h.41m.52s.
1952	Giuseppe Bordon, Italy.....	4h.28m.7.8s.

400-Meter Relay

1912	Great Britain.....	42.4s.
1920	United States.....	42.2s.
1924	United States.....	41s.
1928	United States.....	41s.
1932	United States.....	40s.
1936	United States.....	39.8s.
1948	United States.....	40.6s.
1952	United States.....	40.1s.

1,600-Meter Relay

1908	United States.....	3m.27.2s.
1912	United States.....	3m.16.6s.
1920	Great Britain.....	3m.22.2s.
1924	United States.....	3m.16s.
1928	United States.....	3m.14.2s.
1932	United States.....	3m.8.2s.
1936	Great Britain.....	3m.9s.
1948	United States.....	3m.10.4s.
1952	Jamaica, B. W. I.....	3m.3.9s.

Pole Vault

1896	W. W. Hoyt, United States.....	10 ft. 9½ in.
1900	I. K. Baxter, United States.....	10 ft. 9.9 in.
1904	C. E. Dvorak, United States.....	11 ft. 6 in.
1906	Gonder, France.....	11 ft. 6 in.
1908	A. C. Gilbert, United States.....	12 ft. 2 in.
	E. T. Cook, Jr., United States.....	12 ft. 2 in.
1912	H. J. Babcock, United States.....	12 ft. 11½ in.
1920	F. K. Foss, United States.....	13 ft. 5 in.
1924	L. S. Barnes, United States.....	12 ft. 11½ in.
1928	Sabin W. Carr, United States.....	13 ft. 9½ in.
1932	William Miller, United States.....	14 ft. 1½ in.
1936	Earle Meadows, United States.....	14 ft. 3¼ in.
1948	Gunn Smith, United States.....	14 ft. 1¼ in.
1952	Robert Richards, United States.....	14 ft. 11.14 in.

Standing High Jump

1900	R. C. Ewry, United States.....	5 ft. 5 in.
1904	R. C. Ewry, United States.....	4 ft. 11 in.
1906	R. C. Ewry, United States.....	5 ft. 1½ in.
1908	R. C. Ewry, United States.....	5 ft. 2 in.
1912	Platt Adams, United States.....	5 ft. 4½ in.

Running High Jump

1896	E. H. Clark, United States.....	5 ft. 11¼ in.
1900	I. K. Baxter, United States.....	6 ft. 2½ in.
1904	S. S. Jones, United States.....	5 ft. 11 in.
1906	Con Leahy, Ireland.....	5 ft. 9¾ in.
1908	H. F. Porter, United States.....	6 ft. 3 in.
1912	A. W. Richards, United States.....	6 ft. 4 in.
1920	R. W. Landon, United States.....	6 ft. 4¼ in.
1924	H. M. Osborn, United States.....	6 ft. 5¼ in.
1928	Robert W. King, United States.....	6 ft. 4¾ in.
1932	Duncan McNaughton, Canada.....	6 ft. 5½ in.
1936	Cornelius Johnson, United States.....	6 ft. 7½ in.
1948	John Winter, Australia.....	6 ft. 6 in.
1952	Walter Davis, United States.....	6 ft. 8.32 in.

Standing Broad Jump

1900	R. C. Ewry, United States.....	10 ft. 6½ in.
1904	R. C. Ewry, United States.....	11 ft. 4½ in.
1906	R. C. Ewry, United States.....	10 ft. 10 in.
1908	R. C. Ewry, United States.....	10 ft. 11¼ in.
1912	C. Tscilitiras, Greece.....	11 ft. ¼ in.

Running Broad Jump

1896	E. H. Clark, United States.....	20 ft. 9½ in.
1900	A. E. Kraenzlein, United States.....	23 ft. 6½ in.
1904	Myer Prinstein, United States.....	24 ft. 1 in.
1906	Myer Prinstein, United States.....	23 ft. 7½ in.
1908	Frank Irons, United States.....	24 ft. 5½ in.
1912	A. L. Gutterson, United States.....	24 ft. 11¼ in.
1920	Wm. Pettersson, Sweden.....	23 ft. 5½ in.
1924	DeHart Hubbard, United States.....	24 ft. 5½ in.
1928	Edward B. Hamm, United States.....	25 ft. 4¼ in.
1932	Edward Gordon, United States.....	25 ft. ¾ in.
1936	Jesse Owens, United States.....	26 ft. 5½ in.
1948	Willie Steele, United States.....	25 ft. 8 in.
1952	Jerome Biffle, United States.....	24 ft. 10.03 in.

Standing Hop, Step, and Jump

1900	R. C. Ewry, United States.....	34 ft. 8½ in.
1904	R. C. Ewry, United States.....	34 ft. 7¼ in.

Running Hop, Step, and Jump

1896	J. B. Connolly, United States.....	45 ft.
1900	Myer Prinstein, United States.....	47 ft. 4¼ in.
1904	Myer Prinstein, United States.....	47 ft.
1906	P. O'Connor, Ireland.....	46 ft. 2 in.
1908	T. J. Ahearne, Great Britain.....	48 ft. 11¼ in.
1912	G. Lindblom, Sweden.....	48 ft. 5½ in.
1920	V. Tuulos, Finland.....	47 ft. 6½ in.
1924	A. W. Winter, Australia.....	50 ft. 11½ in.
1928	Mikio Oda, Japan.....	49 ft. 10¼ in.
1932	Chuhel Nambu, Japan.....	51 ft. 7 in.
1936	Naoto Tajima, Japan.....	52 ft. 5½ in.
1948	Arne Ahman, Sweden.....	50 ft. 6¼ in.
1952	Adhemar da Silva, Brazil.....	53 ft. 2.59 in.

16-Lb. Shot-put

1896	R. S. Garrett, United States.....	36 ft. 2 in.
1900	R. Sheldon, United States.....	46 ft. 3½ in.
1904	Ralph Rose, United States.....	48 ft. 7 in.
1906	M. J. Sheridan, United States.....	40 ft. 4½ in.
1908	Ralph Rose, United States.....	46 ft. 7½ in.
1912	P. J. McDonald, United States.....	50 ft. 4 in.
1920	V. Porhola, Finland.....	48 ft. 7½ in.
1924	Clarence Houser, United States.....	49 ft. 2½ in.
1928	John Kuck, United States.....	52 ft. 1¼ in.
1932	Leo Sexton, United States.....	52 ft. 6½ in.
1936	Hans Woellke, Germany.....	53 ft. 1½ in.
1948	Wilbur Thompson, United States.....	56 ft. 2 in.
1952	Parry O'Brien, United States.....	57 ft. 1.43 in.

16-Lb. Shot-put (Both Hands)

1912	Ralph Rose, United States.....	90 ft. 5½ in.
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16-Lb. Hammer Throw

1900	J. J. Flanagan, United States.....	167 ft. 4 in.
1904	J. J. Flanagan, United States.....	168 ft. 1 in.
1908	J. J. Flanagan, United States.....	170 ft. 4¼ in.
1912	M. J. McGrath, United States.....	177 ft. 7 in.
1920	P. J. Ryan, United States.....	173 ft. 5½ in.
1924	F. D. Tootell, United States.....	174 ft. 10¼ in.
1928	Patrick O'Callaghan, Ireland.....	168 ft. 7½ in.
1932	Patrick O'Callaghan, Ireland.....	176 ft. 11½ in.
1936	Karl Hein, Germany.....	185 ft. 4 in.
1948	Imre Nemeth, Hungary.....	183 ft. 11½ in.
1952	Jozsef Csermak, Hungary.....	197 ft. 11.67 in.

56-Lb. Weight Throw

1904	E. Desmarteau, Canada.....	34 ft. 4 in.
1920	P. J. McDonald, United States.....	36 ft. 11½ in.

Discus Throw

1896	R. S. Garrett, United States.....	95 ft. 7½ in.
1900	R. Bauer, Hungary.....	118 ft. 2.9 in.
1904	M. J. Sheridan, United States.....	128 ft. 10½ in.
1906	M. J. Sheridan, United States.....	136 ft. ¼ in.
1908	M. J. Sheridan, United States.....	134 ft. 2 in.
1912	A. R. Taipale, Finland.....	148 ft. 3.9 in.
1920	E. Niklander, Finland.....	146 ft. 7 in.
1924	Clarence Houser, United States.....	151 ft. 5¼ in.
1928	Clarence Houser, United States.....	155 ft. 2¼ in.
1932	John Anderson, United States.....	162 ft. 4¾ in.
1936	Ken Carpenter, United States.....	165 ft. 7¼ in.
1948	Adolfo Consolini, Italy.....	173 ft. 2 in.
1952	Simeon Inness, United States.....	180 ft. 6.85 in.

Discus Throw—Greek Style

1926	W. Jaervinen, Finland.....	115 ft. 4 in.
1908	M. J. Sheridan, United States.....	124 ft. 8 in.

Discus Throw (Right and Left Hand)

1912	A. R. Taipale, Finland.....	271 ft. 10½ in.
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Javelin Throw

1906	E. Lemming, Sweden.....	175 ft. 6 in.
1908	E. Lemming, Sweden.....	179 ft. 10½ in.
1912	E. Lemming, Sweden.....	198 ft. 11¼ in.
1920	Jonni Myyra, Finland.....	215 ft. 9¼ in.
1924	Jonni Myyra, Finland.....	206 ft. 6¼ in.
1928	E. H. Lundquist, Sweden.....	218 ft. 6¼ in.
1932	Matti Jarvinen, Finland.....	238 ft. 7 in.
1936	Gerhard Stoeck, Germany.....	235 ft. 8½ in.
1948	Kaj Rautavaara, Finland.....	228 ft. 10½ in.
1952	Cy Young, United States.....	242 ft. 0.79 in.

Javelin Throw—Free Style

1908	E. Lemming, Sweden.....	178 ft. 7½ in.
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Javelin Throw (Both Hands)

1912	J. J. Saaristo, Finland.....	358 ft. 11½ in.
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Pentathlon

1906	H. Mellander, Sweden.....	24 pts.
1912	F. R. Bie, Norway.....	21 pts.
1920	E. R. Lehtonen, Finland.....	14 pts.
1924	E. R. Lehtonen, Finland.....	16 pts.

Decathlon

1912	H. Wieslander, Sweden.....	7,724.495 pts.
1920	H. Lovland, Norway.....	6,804.35 pts.
1924	H. M. Osborn, United States.....	7,710.775 pts.
1928	Paavo Yrjola, Finland.....	8,053.29 pts.
1932	James Bausch, United States.....	8,462.23 pts.
1936	Glenn Morris, United States.....	7,900 pts.
1948	Robert B. Mathias, United States.....	7,139 pts.
1952	Robert B. Mathias, United States.....	7,887 pts.

(Old point system used from 1912 to 1932; new point system used in 1936 and 1948; revised point system used in 1952.)

TRACK AND FIELD—WOMEN

100-Meter Run

1928	Elizabeth Robinson, United States.....	12.2s.
1932	Stanislawa Walasiewicz, Poland.....	11.9s.
1936	Helen Stephens, United States.....	11.5s.
1948	Fanny Blankers-Koen, Holland.....	11.9s.
1952	Marjorie Jackson, Australia.....	11.5s.

200-Meter Run

1948	Fanny Blankers-Koen, Holland.....	24.4s.
1952	Marjorie Jackson, Australia.....	23.7s.

800-Meter Run

1928	Lina Radke, Germany.....	2m.16.8s.
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80-Meter Hurdles

1932	Mildred Didrikson, United States.....	11.7s.
1936	Trebisonda Valla, Italy.....	11.7s.
1948	Fanny Blankers-Koen, Holland.....	11.2s.
1952	Shirley S. de la Hunty, Australia.....	10.9s.

400-Meter Relay

1928	Canada.....	48.4s.
1932	United States.....	47s.
1936	United States.....	46.9s.
1948	Holland.....	47.5s.
1952	United States.....	45.9s.

Running High Jump

1928	Ethel Catherwood, Canada.....	5 ft. 3 in.
1932	Jean Shiley, United States.....	5 ft. 5¼ in.
1936	Ilolya Csak, Hungary.....	5 ft. 3 in.
1948	Allice Coachman, United States.....	5 ft. 6¼ in.
1952	Ester Brand, South Africa.....	5 ft. 5.75 in.

Running Broad Jump

1948	V. O. Gyarmati, Hungary.....	18 ft. 8¼ in.
1952	Yvette Williams, New Zealand.....	20 ft. 5.66 in.

Discus Throw

1928	H. Konopacka, Poland.....	129 ft. 11½ in.
1932	Lillian Copeland, United States.....	133 ft. 2 in.
1936	Gisela Mauermayer, Germany.....	156 ft. 3¾ in.
1948	Micheline Ostermeyer, France.....	137 ft. 6½ in.
1952	Nina Romaschkova, Russia.....	168 ft. 8.5 in.

Javelin Throw

1932	Mildred Didrikson, United States.....	143 ft. 4 in.
1936	Tilly Fleischer, Germany.....	148 ft. 2¼ in.
1948	H. Bauma, Austria.....	149 ft. 6 in.
1952	Dana Zatopek, Czechoslovakia.....	165 ft. 7.05 in.

Shot-put

1948	Micheline Ostermeyer, France.....	45 ft. 1½ in.
1952	Galina Zybina, Russia.....	50 ft. 2.58 in.

SWIMMING—MEN

50 Yards

1904	Zoltan de Halemay, Hungary.....	28s.
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100 Meters

1896	Alfred Hajos, Hungary.....	1m.22.2s.
1904	Zoltan de Halomay, Hungary.....	1m.2.8s.*
1906	C. M. Daniels, United States.....	1m.13s.
1908	C. M. Daniels, United States.....	1m.5.6s.
1912	Duke P. Kahanamoku, United States.....	1m.3.4s.
1920	Duke P. Kahanamoku, United States.....	1m.1.4s.
1924	John Weissmuller, United States.....	59s.
1928	John Weissmuller, United States.....	58.6s.
1932	Yasuji Miyazaki, Japan.....	58.2s.
1936	Ferenc Csik, Hungary.....	57.6s.
1948	Walter Ris, United States.....	57.3s.
1952	Clarke Scholes, United States.....	57.4s.

* 100 yards.

220 Yards

1900	F. C. V. Lane, Australia.....	
1904	C. M. Daniels, United States.....	2m.44.2s.

400 Meters

1904	C. M. Daniels, United States.....	6m.16.2s.*
1906	Otto Sheff, Austria.....	6m.23.8s.
1908	H. Taylor, Great Britain.....	5m.36.8s.
1912	G. R. Hodgson, Canada.....	5m.24.4s.
1920	N. Ross, United States.....	5m.26.3s.
1924	John Weissmuller, United States.....	5m.4.2s.
1928	Albert Zorilla, Argentina.....	5m.1.6s.
1932	Clarence Crabbe, United States.....	4m.48.4s.
1936	Jack Medica, United States.....	4m.44.5s.
1948	William Smith, United States.....	4m.41s.
1952	Jean Boiteux, France.....	4m.30.7s.

* 440 yards.

500 Meters

1896 Paul Neumann, Austria

880 Yards

1904 Emil Rausch, Germany..... 13m.11.4s.

1,000 Meters

1900 Jarvis, Great Britain

1,200 Meters

1896 Alfred Hajos, Hungary

1,500 Meters

1908 H. Taylor, Great Britain..... 22m.48.4s.

1912 G. R. Hodgson, Canada..... 22m.

1920 N. Ross, United States..... 22m.23.2s.

1924 A. M. Charlton, Australia..... 20m.6.6s.

1928 Arne Borg, Sweden..... 19m.51.8s.

1932 Kusuo Kitamura, Japan..... 19m.12.4s.

1936 Noboru Terada, Japan..... 19m.13.7s.

1948 James McLane, United States..... 19m.18.5s.

1952 Ford Konno, United States..... 18m.30s.

1,600 Meters

1906 H. Taylor, Great Britain..... 28m.28s.

One Mile

1904 Emil Rausch, Germany..... 27m.18.2s.

Plunge for Distance

1904 W. E. Dickey, United States..... 62 ft. 6 in.

800-Meter Relay

1908 Great Britain..... 10m.55.6s.

1912 Australia..... 10m.11.6s.

1920 United States..... 10m.4.4s.

1924 United States..... 9m.53.4s.

1928 United States..... 9m.36.2s.

1932 Japan..... 8m.58.4s.

1936 Japan..... 8m.51.5s.

1948 United States..... 8m.46s.

1952 United States..... 8m.31.1s.

100-Meter Backstroke

1904 Walter Brack, Germany..... 1m.16.8s.*

1908 Arno Bieberstein, Germany..... 1m.24.6s.

1912 Harry Hebner, United States..... 1m.21.2s.

1920 Warren Kealoha, United States..... 1m.15.2s.

1924 Warren Kealoha, United States..... 1m.13.2s.

1928 George Kojac, United States..... 1m.8.2s.

1932 Masaji Kiyokawa, Japan..... 1m.8.6s.

1936 Adolph Kiefer, United States..... 1m.5.9s.

1948 Allen Stack, United States..... 1m.6.4s.

1952 Yeshinobu Oyakawa, United States..... 1m.5.4s.

* 100 yards.

200-Meter Breast Stroke

1908 F. Holman, Great Britain..... 3m.9.2s.

1912 Walter Bathe, Germany..... 3m.1.8s.

1920 H. Malmroth, Sweden..... 3m.4.4s.

1924 R. D. Skelton, United States..... 2m.56.6s.

1928 Y. Tsuruta, Japan..... 2m.48.8s.

1932 Yoshiyuki Tsuruta, Japan..... 2m.45.4s.

1936 Tetsuo Hamuro, Japan..... 2m.42.5s.

1948 Joseph Verdeur, United States..... 2m.39.3s.

1952 John Davies, Australia..... 2m.34.4s.

400-Meter Breast Stroke

1904 Georg Zacharias, Germany..... 7m.23.6s.

1920 H. Malmroth, Sweden..... 6m.31.8s.

1,000-Meter Team Race

1906 Hungary..... 17m.16.2s.

Springboard Diving

Points

1904 G. E. Sheldon, United States..... 12 2-3

1906 Gottlob Walz, Germany..... 85.5

1908 Albert Zuerner, Germany..... 6

1912 Paul Guenther, Germany..... 6

1920 L. E. Kuehn, United States..... 7

1924 A. C. White, United States..... 185.04

1928 P. Desjardins, United States..... 161.38

1932 Michael Galitzen, United States..... 163.57

1936 Richard Degener, United States..... 163.64

1948 Bruce Harlan, United States..... 205.29

1952 David Browning, United States.....

Fancy High Diving

Points

1912 Eric Adlerz, Sweden..... 7

1920 C. E. Pinkston, United States..... 7

1924 A. C. White, United States..... 9

Plain High Diving

Points

1908 H. Johanssen, Sweden..... 83.70

1912 Erik Adlerz, Sweden..... 7

1920 Arvid Wallman, Sweden..... 7

1924 Richard Eve, Australia..... 13½

Plain and Fancy High Diving

Points

1928 P. Desjardins, United States..... 98.74

1932 Harold Smith, United States..... 124.80

1936 Marshall Wayne, United States..... 113.58

1948 Samuel Lee, United States..... 130.05

1952 Samuel Lee, United States..... 156.28

WATER POLO

1900 Great Britain

1904 United States

1908 Great Britain defeated Belgium

1912 Great Britain defeated Austria

1920 Great Britain defeated Belgium

1924 France defeated Belgium

1928 Germany defeated Hungary

1932 Hungary defeated Germany

1936 Hungary

1948 Italy

1952 Hungary

SWIMMING—WOMEN**100 Meters**

1920 Ethelda Bleibtrey, United States..... 1m.13.6s.

1922 Fanny Durack, Australia..... 1m.22.2s.

1924 Ethel Laskie, United States..... 1m.12.4s.

1928 Albina Osipowich, United States..... 1m.11s.

1932 Helene Madison, United States..... 1m.6.8s.

1936 Hendrika Mastenbroek, Holland..... 1m.5.9s.

1948 Greta Andersen, Denmark..... 1m.6.3s.

1952 Katalin Szoke, Hungary..... 1m.6.8s.

300 Meters

1920 Ethelda Bleibtrey, United States..... 4m.34s.

400 Meters

1924 Martha Norelius, United States..... 6m.2.2s.

1928 Martha Norelius, United States..... 5m.42.8s.

1932 Helene Madison, United States..... 5m.28.8s.

1936 Hendrika Mastenbroek, Holland..... 5m.26.4s.

1948 Ann Curtis, United States..... 5m.17.8s.

1952 Valerie Gyenge, Hungary..... 5m.12.1s.

400-Meter Relay

1912	Great Britain.....	5m.52.8s.
1920	United States.....	5m.11.6s.
1924	United States.....	4m.58.8s.
1928	United States.....	4m.47.6s.
1932	United States.....	4m.38s.
1936	Holland.....	4m.36s.
1948	United States.....	4m.29.2s.
1952	Hungary.....	4m.24.4s.

100-Meter Backstroke

1924	Sybil Bauer, United States.....	1m.23.2s.
1928	Marie Braun, Holland.....	1m.22s.
1932	Eleanor Holm, United States.....	1m.19.4s.
1936	Dina Senff, Holland.....	1m.18.9s.
1948	Karen Harup, Denmark.....	1m.14.4s.
1952	Joan Harrison, South Africa.....	1m.14.3s.

200-Meter Breast Stroke

1924	Lucy Morton, Great Britain.....	3m.33.2s.
1928	Hilde Schrader, Germany.....	3m.12.6s.
1932	Clare Dennis, Australia.....	3m.6.3s.
1936	Hideko Maehata, Japan.....	3m.3.6s.
1948	Nel van Vliet, Netherlands.....	2m.57.2s.
1952	Eva Szekely, Hungary.....	2m.51.7s.

Plain High Diving

		Points
1912	Greta Johansson, Sweden.....	39.9
1920	Miss Fryland, Denmark.....	6
1924	Caroline Smith, United States.....	9

Fancy Springboard Diving

		Points
1920	Aileen Riggln, United States.....	9
1924	Elizabeth Becker, United States.....	8
1928	Helen Meany, United States.....	78.62
1932	Georgia Coleman, United States.....	87.52
1936	Marjorie Gestring, United States.....	89.27
1948	Victoria M. Draves, United States.....	108.74
1952	Mrs. Patricia McCormick, United States.....	147.30

Plain and Fancy High Diving

		Points
1928	Elizabeth B. Pinkston, United States.....	31.60
1932	Dorothy Poynton, United States.....	40.26
1936	Mrs. Dorothy Poynton Hill, United States.....	33.93
1948	Victoria M. Draves, United States.....	68.87
1952	Mrs. Patricia McCormick, United States.....	79.37

BOXING**Flyweight**

1904	George V. Finnegan, United States (105-lb. class)
1920	Frank Genaro, United States
1924	Fidel La Barba, United States
1928	Anton Kocsis, Hungary
1932	Stephen Enekes, Hungary
1936	Willi Kaiser, Germany
1948	Pascuel Perez, Argentina
1952	Nate Brooks, United States

Bantamweight

1904	O. L. Kirk, United States (115-lb. class)
1908	H. Thomas, Great Britain
1920	Walker, South Africa
1924	W. H. Smith, South Africa
1928	Vittorio Tamagnini, Italy
1932	Horace Gwynne, Canada
1936	Ulderico Sergio, Italy
1948	Tibor Csik, Hungary
1952	Pentti Hamalainen, Finland

Featherweight

1904	O. L. Kirk, United States
1908	R. K. Gunn, Great Britain
1920	Fritsch, France
1924	John Fields, United States
1928	L. Van Klaveren, Holland
1932	Carmelo Ambrosio Robledo, Argentina
1936	Oscar Casanovas, Argentina
1948	Ernesto Formenti, Italy
1952	Jan Zachara, Czechoslovakia

Lightweight

1904	H. J. Spanger, United States
1908	F. Grace, Great Britain
1920	Samuel Mosberg, United States
1924	Harold Nielsen, Denmark
1928	Carlo Orlandi, Italy
1932	Lawrence Stevens, South Africa
1936	Imre Harangl, Hungary
1948	Gerry Dreyer, South Africa
1952	Aurellano Bolognesi, Italy

Light Welterweight

1952	Charles Adkins, United States
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Welterweight

1904	Al Young, United States
1920	Schneider, Canada
1924	J. S. Delarge, Belgium
1928	Edward Morgan, New Zealand
1932	Edward Flynn, United States
1936	Sten Suvio, Finland
1948	Julius Torma, Czechoslovakia
1952	Zygmunt Chychla, Poland

Light Middleweight

1952	Laszlo Papp, Hungary
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Middleweight

1904	Charles Mayer, United States
1908	J. W. H. T. Douglas, Great Britain
1920	H. W. Mallin, Great Britain
1924	H. W. Mallin, Great Britain
1928	Piero Toscani, Italy
1932	Carmen Barth, United States
1936	Jean Despeaux, France
1948	Laszlo Papp, Hungary
1952	Floyd Patterson, United States

Light Heavyweight

1920	Edward Eagan, United States
1924	H. J. Mitchell, Great Britain
1928	Victoria Avendano, Argentina
1932	David E. Carstens, South Africa
1936	Roger Michelot, France
1948	George Hunter, South Africa
1952	Norvel Lee, United States

Heavyweight

1904	Sam Berger, United States
1908	A. L. Oldham, Great Britain
1920	Rawson, Great Britain
1924	Otto Von Porath, Norway
1928	A. Rodriguez Jurado, Argentina
1932	Santiago A. Lovell, Argentina
1936	Herbert Runge, Germany
1948	Rafael Iglesias, Argentina
1952	Edward Sanders, United States

POLO

1900	Great Britain	1924	Argentina
1908	Great Britain	1936	Argentina
1920	Great Britain		

WRESTLING**CATCH-AS-CATCH-CAN****Flyweight**

1904	R. Curry, United States (105-lb. class)
1948	V. L. Viitala, Finland
1952	Hassen Cemici, Turkey

Bantamweight

1904	George N. Mehnert, U. S. (115-lb. class)
1908	George N. Mehnert, U. S. (119-lb. class)
1924	Kustaa Pihlajamaki, Finland
1928	K. Makinen, Finland
1932	Robert Edward Pearce, United States
1936	Odon Zombory, Hungary
1948	Nassuh Akar, Turkey
1952	Shohachi Ishii, Japan

Featherweight

1896	Karl Schumann, Germany
1904	I. Niflot, United States
1908	G. S. Dole, United States
1920	Charles E. Ackerly, United States
1924	Robin Reed, United States
1928	Allie Morrison, United States
1932	Herman Pihlajamaki, Finland
1936	Kustaa Pihlajamaki, Finland
1948	Gazanfer Bilge, Turkey
1952	Bayram Sit, Turkey

Lightweight

1904	B. J. Bradshaw, United States
1908	G. de Relwyskow, Great Britain
1920	Kalle Anttila, Finland
1924	Russell Vis, United States
1928	O. Kapp, Estonia
1932	Charles Pacome, France
1936	Karoly Karpati, Hungary
1948	Celal Atik, Turkey
1952	Olle Anderberg, Sweden

Welterweight

1904	O. F. Roehm, United States
1924	Hermann Gehrl, Switzerland
1928	A. J. Haavisto, Finland
1932	Jack F. Van Bebber, United States
1936	Frank Lewis, United States
1948	Yasar Dogu, Turkey
1952	William Smith, United States

Middleweight

1904	Charles Erickson, United States
1908	S. V. Bacon, Great Britain
1920	E. Leino, Finland
1924	Fritz Haggmann, Switzerland
1928	E. Kyburg, Switzerland
1932	Ivar Johansson, Sweden
1936	Emile Poilve, France
1948	Glenn Brand, United States
1952	David Gimakuridze, Russia

Light Heavyweight

1920	Anders Larsson, Sweden
1924	John Spellman, United States
1928	T. S. Sjostedt, Sweden
1932	Peter Joseph Mehringer, United States
1936	Knut Fridell, Sweden
1948	Henry Wittenberg, United States
1952	Wiking Palm, Sweden

Heavyweight

1904	B. Hansen, United States
1908	G. C. O'Kelly, Great Britain
1920	Roth, Switzerland

1924	Harry Steele, United States
1928	Johan C. Richthoff, Sweden
1932	Johan C. Richthoff, Sweden
1936	Kristjan Palusalu, Estonia
1948	George Bobis, Hungary
1952	Arsen Mekokishvili, Russia

ROWING**Eight-Oared Shell**

1900	United States.....	6m.7½s.
1904	United States.....	
1908	Great Britain.....	
1912	Great Britain.....	6m.15s.
1920	United States.....	6m.29½s.
1924	United States.....	6m.33½s.
1928	United States.....	6m.3½s.
1932	United States.....	6m.37½s.
1936	United States.....	6m.25.4s.
1948	United States.....	5m.56.7s.
1952	United States.....	6m.28.9s.

Single Sculls

1900	Barrelet, Belgium.....	7m.35½s.
1904	Frank B. Greer, United States.....	
1908	H. T. Blackstaffe, Great Britain.....	
1912	W. D. Kinear, Great Britain.....	7m.47½s.
1920	J. B. Kelly, United States.....	7m.35s.
1924	Jack Beresford, Jr., Great Britain.....	7m.49½s.
1928	Henry Robert Pearce, Australia.....	7m.11s.
1932	Henry Robert Pearce, Australia.....	7m.44½s.
1936	Gustav Schaffer, Germany.....	8m.21.5s.
1948	Mervyn Wood, Australia.....	7m.24.4s.
1952	Jurij Tjukalov, Russia.....	8m.12.8s.

Double Sculls

1904	United States.....	
1908	J. R. K. Fenning and G. L. Thomson, Great Britain.....	
1920	J. B. Kelly and Paul V. Costello, United States.....	7m.9s.
1924	J. B. Kelly and Paul V. Costello, United States.....	6m.34s.
1928	Paul V. Costello and Charles J. McIlvaine, United States.....	6m.41½s.
1932	Kenneth Myers and W. E. Garrett Gilmore, United States.....	7m.17½s.
1936	Jack Beresford and Leslie Southwood, Great Britain.....	7m.20.8s.
1948	B. H. Bushnell and R. D. Burnell, Great Britain.....	6m.51.3s.
1952	T. Cappelza and E. Guerrero, Argentina... ..	7m.32.2s.

Four-Oared Shell with Coxswain

1900	Germany.....	
1906	Italy.....	
1912	Germany.....	6m.59½s.
1920	Switzerland.....	6m.54s.
1924	Switzerland.....	7m.18½s.
1928	Italy.....	6m.47½s.
1932	Germany.....	7m.19½s.
1936	Germany.....	7m.16.2s.
1948	United States.....	6m.50.3s.
1952	Czechoslovakia.....	7m.33.4s.

Four-Oared Shell without Coxswain

1904	United States.....	
1908	Great Britain.....	
1924	Great Britain.....	
1928	Great Britain.....	6m.36s.
1932	Great Britain.....	6m.58½s.
1936	Germany.....	7m.1.8s.
1948	Italy.....	6m.39s.
1952	Yugoslavia.....	7m.16s.

Pair-Oared Shell with Coxswain

1900	R. Klein and F. A. Brandt, Holland.....	7m.34 $\frac{1}{2}$ s.
1906	Italy (1,600 Meters)	
1906	Italy (1,000 Meters)	
1920	M. Olgeni and G. Scatturin, Italy.....	7m.56s.
1924	M. Candevau and A. Felber, Switzerland..	8m.39s.
1928	H. W. Schochlin and C. F. Schochlin, Switzer- land.....	7m.42 $\frac{1}{2}$ s.
1932	Joseph A. Schauers and Charles M. Kieffer, United States.....	8m.25 $\frac{1}{2}$ s.
1936	Gerhard Gustmann and Herbert Adamski, Germany.....	8m.36.9s.
1948	F. Pedersen and T. Henriksen, Denmark...	8m.0.5s.
1952	R. Salles-G. Mercier, France.....	8m.28.6s.

Pair-Oared Shell without Coxswain

1904	United States.....	10m.57s.
1908	J. Fenning and G. Thomson, Great Britain..	9m.41s.
1924	W. H. Rosingh and A. C. Beynen, Holland..	8m.19 $\frac{1}{2}$ s.
1928	K. Moeschter and B. Muller, Germany.....	7m.6 $\frac{1}{2}$ s.
1932	Lewis Clivs and H. R. Arthur Edwards, Great Britain.....	8m.
1936	Willi Eichhorn and Hugo Strauss, Germany.	8m.16.1s.
1948	J. H. T. Wilson and W. G. R. M. Laurie, Great Britain.....	7m.21.1s.
1952	Charles Logg, Jr., and Thomas Price, United States.....	8m.20.7s.

BASKETBALL

1904	United States	1948	United States
1936	United States	1952	United States

U. S.-Russia Point Analysis

One of the highlights of the 1952 Olympic Summer Games at Helsinki was the keen battle between the United States and Russia for the unofficial team title. The Russians held the lead until a next-to-last day surge gave the Americans 111 points to clinch the championship. A breakdown by sports of the points scored by the two leaders (based on the 10-5-4-3-2-1 system):

	U. S.	Russia
Men's track and field.....	224	57
Women's track and field.....	11	73 $\frac{1}{2}$
Women's gymnastics.....	0	95 $\frac{1}{2}$
Men's gymnastics.....	0	92 $\frac{1}{2}$
Greco-Roman wrestling.....	0	56
Free-style wrestling.....	26	34
Rowing.....	24	20
Shooting.....	15	30
Canoeing.....	15	7
Yachting.....	25	0
Men's swimming.....	93	2
Women's swimming.....	48	6
Men's fencing.....	3	0
Women's fencing.....	4	0
Modern Pentathlon.....	4	5
Water polo.....	3	0
Weight lifting.....	50	49
Basketball.....	10	5
Boxing.....	50	24
Equestrian.....	9	0
Totals.....	614	553$\frac{1}{2}$

OTHER 1952 OLYMPIC CHAMPIONS

Summer Games

Gymnastics

	Pts.
All-around—Victor Tchoukarine, Russia.....	115.70
Free exercises—Karl Thoresen, Sweden.....	19.25
Horizontal bar—Jack Gunthard, Switzerland.....	19.55
Long horse—Victor Tchoukarine.....	19.20
Parallel bars—Hans Eugster, Switzerland.....	19.65
Rings—Grant Chaguinian, Russia.....	19.75
Side horse—Victor Tchoukarine.....	19.50
Team—Russia.....	574.40

WOMEN

All-around—Marie Gorokhovakaja, Russia.....	76.78
Beam—Nina Botcharova, Russia.....	19.22
Floor exercises—A. Keleti, Hungary.....	19.36
Side-horse vault—Ekaterina Kalinhouk, Russia.....	19.20
Uneven bars—Margit Korondi, Hungary.....	19.40
Team drill—Sweden.....	74.20
Team—Russia.....	527.03

Fencing

Foil—Christian d'Orliola, France
Épée—Eduardo Mangiarotti, Italy
Saber—Paul Kovacs, Hungary
Women's foil—Irene Camber, Italy

TEAM

Foil—France	Épée—Italy	Saber—Hungary
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Cycling

1,000-m. sprint—Enzo Sacchi, Italy	
1,000-m. title trial—Russell Mockridge, Australia..	1m.11.1s.
2,000-m. tandem—Australia (Lionel Cox-Mockridge)	
4,000-m. team pursuit race—Italy.....	4m.46.1s.
118½-mile race—Andre Noyelle, Belgium.....	5h.6m.3.4s.
118½-mile team race—Belgium.....	15h.21m.46.6s.

Wrestling

GRECO-ROMAN

Flyweight—Boris Gurevitch, Russia
Bantamweight—Imre Hodos, Hungary
Featherweight—Jakov Punkine, Russia
Lightweight—Chasame Safine, Russia
Welterweight—Miklos Szilvasi, Hungary
Middleweight—Alex Gronberg, Sweden
Light Heavyweight—Kolpo Grondahl, Finland
Heavyweight—Ioganes Kotkas, Russia

Weight Lifting

	Kilos
Bantamweight—Ivan Ododov, Russia.....	315
Featherweight—Rafael Chimishkyan, Russia.....	337.5
Lightweight—Tommy T. Kono, U. S.....	362.5
Middleweight—Peter George, U. S.....	400
Light heavyweight—T. Lomakin, Russia.....	417.5
Middle heavyweight—Norbert Schemansky, U. S.....	445
Heavyweight—John Davis, U. S.....	460

Equestrian

Dressage—Henri St. Cyr, Sweden.....	556.5 pts.
Military event—Hans Von Blixen-Finecke, Sweden.....	28.33 penalty pts.
Prix des Nations—Pierre d'Orliola, France.....	8 demerits*

* Won with no demerits in five-way jump off.

TEAM

Dressage—Sweden.....	1,592.5 pts.
Military event—Sweden.....	221.94 penalty pts.
Prix des Nations—Great Britain.....	40.75 demerit

Canoeing

CANADIAN SINGLES

1,000 m.—Josef Holecak, Czechoslovakia.....	4m.56.3s.
10,000 m.—Frank B. Havens, U. S.	57m.41.1s.

CANADIAN PAIRS

1,000 m.—Denmark (Bent Rasch-Finn Haunstoft)	4m.38.3s.
10,000 m.—France (George Turlier-Jean Laudet)	54m.8.3s.

KAYAK SINGLES

1,000 m.—Gert Fredriksson, Sweden.....	4m.7.9s.
10,000 m.—Thorvald Stromberg, Finland.....	47m.22.8s.
Women (500 m.)—Sylvia Saimo, Finland.....	2m.18.4s.

KAYAK PAIRS

1,000 m.—Finland (Kurt Wires-Yrjo Hietanen)..	3m.51.1s.
10,000 m.—Finland (Wires-Hietanen).....	44m.21.3s.

Shooting

	Pts.
Free pistol—Huelet Benner, U. S.	553
Silhouette (pistol)—Karoly Takacs, Hungary.....	579
Free rifle—Anatoli Bogdanov, Russia.....	1,123
Smallbore rifle (all-around)—Erling Kongshaug, Norway.....	1,164
Smallbore rifle (prone)—Yosef Sarbu, Rumania	400
Running deer—John Larsen, Norway.....	413
Clay pigeon (trapshooting)—George Genereux, Canada	192

Yachting

Class	Pts.
Star—Italy (Merope).....	7,635
Six-meter—United States (Llanoria).....	4,870
5.5-meter—United States (Complex II).....	5,751
Dragon—Norway (Pan).....	6,130
Finn—Denmark.....	8,209

Modern Pentathlon

Individual—Lars Hall, Sweden.....	32 pts.
Team—Hungary.....	166 pts.

Other Team Champions

Field hockey—India	Soccer—Hungary
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Olympic Games Competitors

Year	Site	Entries	Year	Site	Entries
1896	Athens.....	484	1924	Paris.....	3,385
1900	Paris.....	427	1928	Amsterdam.....	3,905
1904	St. Louis.....	595	1932	Los Angeles.....	1,700
1906	Athens.....	901	1936	Berlin.....	3,959
1908	London.....	2,082	1948	London.....	6,000
1912	Stockholm.....	3,282	1952	Helsinki.....	5,781
1920	Antwerp.....	2,741			

UNOFFICIAL POINT SCORE OF 1952 SUMMER OLYMPIC GAMES

(Associated Press compilation)

Based on 10 points for each first place, 5 for second, 4 for third, 3 for fourth, 2 for fifth and 1 for sixth.

	Pts.		Pts.		Pts.		Pts.
1. United States.....	614	14. South Africa.....	67	26. Poland.....	26½	38. Trinidad.....	8
2. Russia.....	563½	15. Denmark.....	58	27. Austria.....	23	38. Uruguay.....	8
3. Hungary.....	308	16. Argentina.....	55	28. Egypt.....	22	40. Ireland.....	6
4. Sweden.....	267	17. Norway.....	54	28. Yugoslavia.....	22	41. Spain.....	6
5. Germany.....	170½	18. Netherlands.....	44	30. New Zealand.....	19	42. Philippines.....	4
6. Finland.....	162½	19. Iran.....	40	31. Luxembourg.....	17	42. Venezuela.....	4
7. Italy.....	158½	20. Jamaica.....	39	31. India.....	17	42. Bulgaria.....	4
8. France.....	156½	21. Turkey.....	36½	33. South Korea.....	16½	45. Cuba.....	3
9. Great Britain.....	117	22. Belgium.....	34	34. Chile.....	14	45. Pakistan.....	3
10. Czechoslovakia.....	113½	23. Rumania.....	31½	35. Mexico.....	12	47. Bahamas.....	2
11. Australia.....	97	24. Canada.....	30	36. Lebanon.....	11½	48. Greece.....	1½
12. Switzerland.....	92½	24. Brazil.....	30	37. Portugal.....	10	49. Singapore.....	1
13. Japan.....	71						

1952 Winter Games

(At Oslo, Norway, Feb. 14-25)

Skiing

Slalom—Othmar Schneider, Austria.....	2:00.0
Giant slalom—Stein Eriksen, Norway.....	2:25.0
Downhill—Zeno Colo, Italy.....	2:30.8
18-km. race—Hallgeir Brenden, Norway.....	1:01.34
40-km. relay—Finland (Hasu, Lonkila, Korhonen, Makela).....	2:20.16
50-km. race—Veikko Hakulinen, Finland.....	3:33.33
Jumping—Arnfriin Bergmann, Norway.....	226 pts.
Nordic combined (ski-jump, 18-km. race)— Simon Slattvik, Norway.....	451.621 pts.

WOMEN

Slalom—Mrs. Andrea Mead Lawrence, United States (Rutland, Vt.).....	2:10.6
Giant slalom—Mrs. Andrea Mead Lawrence.....	2:06.8
Downhill—Trude Jochum-Beiser, Austria.....	1:47.1
10-km. race—Lydia Wideman, Finland.....	41:40.0

Figure Skating

Men—Richard Button, United States (Engle- wood, N. J.).....	192.256 pts.
Women—Jeannette Altwegg, England.....	161.756 pts.
Pairs—Ria and Paul Falk, Germany.....	11.400 pts.

Speed Skating

500 meters—Ken Henry, United States (Chicago)...	0:43.2
1,500 meters—Hjalmar Andersen, Norway.....	2:20.4
5,000 meters—Hjalmar Andersen.....	8:10.6
10,000 meters—Hjalmar Andersen.....	16:45.8

Other Champions

2-man bobsled—Germany No. 1 (Andreas Ostler- Lorenz Nieberl).....	5:24.54
4-man bobsled—Germany No. 1 (Ostler, Kuhn, Nie- berl, Kemser).....	5:07.84
Ice hockey—Canada (W 7, L 0, T 1)	
Team (unofficial)—Norway	

The Olympic Oath

"We swear that we will take part in the Olympic Games in loyal competition, respecting the regulations which govern them and desirous of participating in them in the true spirit of sportsmanship for the honor of our country and for the glory of sport."

Avery Brundage of Chicago was elected president of the International Olympic Committee on July 16, 1952. He is the first American ever to head the organization.

TRACK AND FIELD

RUNNING, jumping, hurdling and throwing weights—track and field sports, in other words—are as natural to boys and young men as eating, drinking and breathing. Unorganized competition in this form of sport goes back beyond the Cave Man era. Organized competition begins with the first recorded Olympic Games in Greece, 776 B. C., when Coroebus of Elis won the only event on the program, a race of approximately 200 yards. The Olympic Games, with an ever-widening program of events, continued until "the glory that was Greece" had faded and "the grandeur that was Rome" was tarnished, and finally were abolished by decree of Emperor Theodosius I of Rome in A. D. 394. The Tailteann Games of Ireland are supposed to have antedated the first Olympic Games by some centuries, but we have no records of the specific events and winners thereof.

Professional contests of speed and strength were popular at all times and in many lands, but the widespread competition of amateur athletes in track and field

sports is a comparatively modern development. The first organized amateur athletic meet of record was sponsored by the Royal Military Academy at Woolwich, England, in 1849. Oxford and Cambridge track and field rivalry began in 1864 and the English amateur championships were established in 1866. In the United States such organizations as the New York Athletic Club and the Olympic Club of San Francisco conducted track and field meets in the 1870's, and a few colleges joined to sponsor a meet in 1874. The success of the college meet led to the formation of the Intercollegiate Association of Amateur Athletes of America and the holding of an annual set of championship games beginning in 1876.

Many athletic clubs joined the National Association of Amateur Athletes of America, formed in 1879, but dissension broke up this organization and the Amateur Athletic Union, organized in 1888, has been the ruling body in American amateur athletics since that time.

Track and Field Statistics

Source: Official A.A.U. Track and Field Rules and Records Book. Reprinted by courtesy of the publishers, the Amateur Athletic Union of the United States, 233 Broadway, New York, N. Y.

MEN'S WORLD RECORDS

Recognized by the International Amateur Athletic Federation, Feb. 4, 1952

RUNNING

Event	Record	Holder	Home country	Where made	Date
100 yd.....	9.3 s.....	Melvin E. Patton.....	United States.....	Fresno, Calif.....	May 15, 1948
220 yd.....	20.2 s.....	Melvin E. Patton.....	United States.....	Los Angeles.....	May 7, 1949
440 yd.....	46 s.....	Herbert McKenley.....	Jamaica, B.W.I.....	Berkeley, Calif.....	June 5, 1948
880 yd.....	1 m. 49.2 s.....	Sydney C. Wooderson.....	Gt. Britain.....	London.....	Aug. 20, 1938
		Marvin Whitfield.....	United States.....	Berea, Ohio.....	Aug. 19, 1950
1 mi.....	4 m. 01.4 s.....	Gunder Hagg.....	Sweden.....	Malmo, Sweden.....	July 17, 1945
2 mi.....	8 m. 42.8 s.....	Gunder Hagg.....	Sweden.....	Stockholm.....	Aug. 4, 1944
3 mi.....	13 m. 32.4 s.....	Gunder Hagg.....	Sweden.....	Gothenburg.....	Sept. 23, 1942
6 mi.....	28 m. 30.8 s.....	Viljo Heino.....	Finland.....	Kouvola, Finland.....	Sept. 1, 1949
10 mi.....	48 m. 12 s.....	Emil Zatopek.....	Czechoslovakia.....	Boleslav, Czech.....	Sept. 29, 1951
15 mi.....	1 h. 17.28.6 s.....	Mikko Hietanen.....	Finland.....	Gamlakarleby, Finland.....	May 23, 1948
1 hr.....	12 mi. 29 yd.....	Viljo Heino.....	Finland.....	Turku, Finland.....	Sept. 30, 1945

WALKING

Event	Record	Holder	Home country	Where made	Date
2 mi.....	12 m. 45 s.....	Werner Hardmo.....	Sweden.....	Malmo.....	Sept. 1, 1945
5 mi.....	35 m. 24 s.....	R. Hardy.....	Gt. Brit. & No. Ire.....	London.....	Aug. 4, 1951
7 mi.....	48 m. 15.2 s.....	Werner Hardmo.....	Sweden.....	Kumla, Sweden.....	Sept. 9, 1945
10 mi.....	1 h. 10 m. 55.8 s.....	John Mikaelsson.....	Sweden.....	Stockholm.....	Aug. 23, 1945
20 mi.....	2 h. 41 m. 7 s.....	H. Olsson.....	Sweden.....	Boras, Sweden.....	Aug. 15, 1943
30 mi.....	4 h. 21 m. 38.2 s.....	J. Ljunggren.....	Sweden.....	Gislaved, Sweden.....	July 29, 1951
1 hr.....	8 mi. 1025 yd.....	John Mikaelsson.....	Sweden.....	Stockholm.....	Sept. 1, 1945
2 hr.....	15 mi. 1521 yd.....	Olle Anderson.....	Sweden.....	Stockholm.....	Sept. 15, 1945

RUNNING—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
100 meters	10.2 s.	Jesse Owens	United States	Chicago	June 20, 1936
		Harold Davis	United States	Compton, Calif.	June 6, 1941
		Lloyd LaBeach	Panama	Fresno, Calif.	May 15, 1948
		N. H. Ewell	United States	Evanston, Ill.	July 9, 1948
		E. McD. Bailey	Gt. Brit. & No. Ire.	Belgrade	Aug. 25, 1951
200 m.	20.2 s.	Melvin E. Patton	United States	Los Angeles	May 7, 1949
400 m.	45.8 s.	George Rhoden	Jamaica, B.W.I.	Eskilstuna, Sweden	Aug. 22, 1950
800 m.	1 m. 46.6 s.	Rudolph Harbig	Germany	Milan	July 15, 1939
1,000 m.	2 m. 21.4 s.	O. Rune Gustafsson	Sweden	Boras, Sweden	Sept. 4, 1918
		Marcel Hansenne	France	Gothenburg	Aug. 27, 1948
1,500 m.	3 m. 43 s.	Gunder Hagg	Sweden	Gothenburg	July 7, 1944
		Lennart Strand	Sweden	Malmo	July 15, 1947
2,000 m.	5 m. 7 s.	Gaston Reiff	Belgium	Brussels	Sept. 29, 1948
3,000 m.	7 m. 56.8 s.	Gaston Reiff	Belgium	Gavle, Sweden	Aug. 12, 1949
5,000 m.	13 m. 58.2 s.	Gunder Hagg	Sweden	Gothenburg	Sept. 20, 1942
10,000 m.	29 m. 2.6 s.	Emil Zatopek	Czechoslovakia	Turku	Aug. 4, 1950
15,000 m.	44 m. 54.6 s.	Emil Zatopek	Czechoslovakia	Boleslav	Sept. 29, 1951
20,000 m.	59 m. 51.7 s.	Emil Zatopek	Czechoslovakia	Boleslav	Sept. 29, 1951
25,000 m.	1 h. 20 m. 14 s.	Mikko Hietanen	Finland	Gamlakarleby	May 23, 1948
30,000 m.	1 h. 38 m. 54 s.	J. Z. Maskatchenkoy	U. S. S. R.	Moscow	Oct. 3, 1951
1 hour	20,052 meters 40 cm.	Emil Zatopek	Czechoslovakia	Boleslav	Sept. 29, 1951

WALKING—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
3,000 m.	11 m. 51.8 s.	Werner Hardmo	Sweden	Malmo	Sept. 1, 1945
5,000 m.	20 m. 26.8 s.	Werner Hardmo	Sweden	Kumla	July 31, 1945
10,000 m.	42 m. 39.6 s.	Werner Hardmo	Sweden	Kumla	Sept. 9, 1945
15,000 m.	1 h. 8 m. 28 s.	D. Paraschivescu	Rumania	Bucharest	Mar. 20, 1949
20,000 m.	1 h. 32 m. 28.4 s.	John Mikaelsson	Sweden	Vaxjo	July 12, 1942
30,000 m.	2 h. 28 m. 57.4 s.	H. Olsson	Sweden	Boras	Aug. 15, 1943
50,000 m.	4 h. 32 m. 52 s.	J. Ljunggren	Sweden	Gislaved	July 29, 1951
1 hr.	13,812 m.	John Mikaelsson	Sweden	Stockholm	Sept. 1, 1945
2 hr.	25,531 m.	Olle Anderson	Sweden	Stockholm	Sept. 15, 1945

HURDLES (10 hurdles)

Event	Record	Holder	Home country	Where made	Date
120 yd.	13.5 s.	R. A. Attlessey	United States	Fresno, Calif.	May 13, 1950
220 yd.	22.3 s.	Harrison Dillard	United States	Salt Lake City, Utah	June 21, 1947
440 yd.	51.9 s.	A. Filiput	Italy	Milan	Oct. 8, 1950
110 m.	13.6 s.	Harrison Dillard	United States	Lawrence, Kansas	Apr. 17, 1948
		R. A. Attlessey	United States	College Park, Md.	June 24, 1950
		Fred Wolcott	United States	Princeton, N. J.	June 8, 1940
200 m.	22.3 s.	Harrison Dillard	United States	Salt Lake City, Utah	June 21, 1947
400 m.	50.6 s.	Glenn Hardin	United States	Stockholm	July 26, 1934

RELAY RACES

Event	Record	Holder	Home country	Where made	Date
440 yd. (4 x 110)	40.5 s.	Univ. of So. California	United States	Fresno, Calif.	May 14, 1938
		(L. LaFond, W. C. Andersson, P. Jordan, A. Talley)			
880 yd. (4 x 220)	1 m. 24 s.	Univ. of So. California	United States	Los Angeles	May 20, 1949
		(M. Patton, R. Frazier, G. Pasquali, N. Stocks)			
1 mi. (4 x 440)	3 m. 9.4 s.	Univ. of California	United States	Los Angeles	June 17, 1941
		(John Reese, F. A. Froom, C. F. Barnes, Grover Klemmer)			
2 mi. (4 x 880)	7 m. 30.6 s.	Gt. Brit. & No. Ireland National Team		London	Sept. 26, 1951
		(G. W. Nankeville, A. Webster, F. Evans, H. J. Parlett)			
4 mi. (4 x 1 mile)	16 m. 42.8 s.	Gefle Idrottsforening	Sweden	Stockholm	Aug. 5, 1949
		(I. Bengtsson, G. Bergkvist, O. Aberg, H. Eriksson)			

RELAY RACES—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
400 m. (4 x 100)	39.8 s.	U. S. A. National Team	United States	Berlin	Aug. 9, 1936
		(Owens, Metcalfe, Draper, Wykoff)			
800 m. (4 x 200)	1 m. 24 s.	Univ. of So. California	United States	Los Angeles	May 20, 1949
		(M. Patton, R. Frazier, G. Pasquali, N. Stocks)			
1600 m. (4 x 400)	3 m. 8.2 s.	U. S. A. National Team	United States	Los Angeles	Aug. 7, 1932
		(Fuqua, Ablowich, Warner, Carr)			
3,200 m. (4 x 800)	7 m. 29 s.	Swedish National Team	Sweden	Stockholm	Sept. 13, 1946
		(T. Sten, O. Linder, S. Lindgard, Lennart Strand)			
6,000 m. (4 x 1500)	15 m. 30.2 s.	Gefle Idrottsforening	Sweden	Gavle	July 3, 1949
		(I. Bengtsson, G. Bergkvist, O. Aberg, H. Eriksson)			

FIELD EVENTS

Event	Record	Holder	Home country	Where made	Date
High jump.....	6 ft. 11 in. (2.11 m.)	Les Stears.....	United States	Los Angeles.....	June 17, 1941
Running broad jump.....	26 ft. 8½ in. (8.13 m.)	Jesse Owens.....	United States	Ann Arbor.....	May 25, 1935
Rng. hop, step, jump.....	52 ft. 6¼ in. (16.01 m.)	A. F. da Silva.....	Brazil.....	Rio de Janeiro.....	Sept. 30, 1951
Pole vault.....	15 ft. 7¼ in. (4.77 m.)	C. Warmerdam.....	United States	Modesto, Calif.....	May 23, 1942
16-lb. shot-put.....	58 ft. 10½ in. (17.95 m.)	James Fuchs.....	United States	Ekilstuna, Sweden.....	Aug. 22, 1950
Discus throw.....	186 ft. 11 in. (56.97 m.)	Fortune Gordien.....	United States	Tavastehus, Finland.....	Aug. 14, 1949
Javelin throw.....	258 ft. 2¼ in. (78.70 m.)	Yrjö Nikkanen.....	Finland.....	Kotka.....	Oct. 16, 1938
16-lb. hammer throw.....	196 ft. 5½ in. (59.88 m.)	Imre Nemeth.....	Hungary.....	Budapest.....	May 16, 1950

DECATILON

Points	Holder	Home country	Where made	Date
8,042.....	Robert Mathias.....	United States	Tulare, Calif.....	June 29-30, 1950

WOMEN'S WORLD RECORDS

RUNNING

Event	Record	Holder	Home country	Where made	Date
100 yd.....	10.7 s.	Marjorie Jackson.....	Australia.....	Newcastle, Austr.....	Mar. 31, 1950
220 yd.....	24.2 s.	F. E. Blankers-Koen.....	Netherlands	Brescia, Italy.....	June 29, 1950
880 yd.....	2 m. 15.6 s.	Anna Larsson.....	Sweden.....	Stockholm.....	Sept. 5, 1945
60 m.....	7.3 s.	Stella Walasiewicz.....	Poland.....	Lemberg, Pol.....	Sept. 24, 1933
		Helen Stephens.....	United States	Berlin.....	Aug. 4, 1936
100 m.....	11.5 s.	F. E. Blankers-Koen.....	Netherlands	Amsterdam.....	June 13, 1948
200 m.....	23.6 s.	Stella Walasiewicz.....	Poland.....	Warsaw.....	Aug. 15, 1935
800 m.....	2 m. 12 s.	N. G. Plotneva.....	U.S.S.R.....	Minsk, U.S.S.R.....	Aug. 26, 1951

RELAY RACES

440 yd. (4 x 110).....	46.9 s.	National Team.....	South Africa	Pretoria, S. A.....	Mar. 26, 1951
		(F. C. Wills, S. Black, D. Hasenjager, E. Maskell)			
400 m. (4 x 100).....	46.4 s.	National Team.....	Germany.....	Berlin.....	Aug. 8, 1936
		(Albus, Krauss, Dollinger, Dörfelidt)			
880 yd. (4 x 220).....	1 m. 41.4 s.	Women's A. A. A.....	Gt. Brit. & No. Ire.	London.....	Sept. 26, 1951
		(S. Cheeseman, B. Foster, M. Brian, D. G. Hall)			
800 m. (4 x 200).....	1 m. 39.7 s.	National Team.....	U.S.S.R.....	Bucharest.....	Sept. 27, 1951
		(N. Hnykina, E. I. Sechenova, S. Sofronova, S. R. Malsina)			
2,400 m. (3 x 800).....	6 m. 49.6 s.	National Team.....	U.S.S.R.....	Moscow.....	July 24, 1950
		(L. Sokolova, N. Kabysh, E. Vasiljeva)			
1½ ml. (3 x 880).....	6 m. 53.8 s.	National Team.....	U.S.S.R.....	Tbilisi, U.S.S.R.....	Oct. 28, 1949
		(Zhiljova, Dmitruk, Vasiljeva)			

HURDLES

80 m.....	11 s.	F. E. Blankers-Koen.....	Netherlands.....	Amsterdam.....	June 20, 1948
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FIELD EVENTS

Rng. high jump.....	5 ft. 7½ in. (1.72 m.)	S. Lerwill.....	Gt. Brit. & No. Ire.	London.....	July 7, 1951
Broad jump.....	20 ft. 6 in. (6.25 m.)	F. E. Blankers-Koen.....	Netherlands.....	Leiden, Neth.....	Sept. 13, 1943
Shot-put.....	49 ft. 3¼ in. (15.02 m.)	A. S. Andreeva.....	U.S.S.R.....	Ploesti, Rumania.....	Nov. 9, 1952
Discus throw.....	175 ft. 1 in. (53.37 m.)	Nina Dumbadze.....	U.S.S.R.....	Gory, U.S.S.R.....	May 27, 1951
Javelin throw.....	175 ft. 2¼ in. (53.41 m.)	N. V. Smirnikskaja.....	U.S.S.R.....	Moscow.....	Aug. 5, 1949

PENTATHLON

418 points.....	Gisela Mauermayer.....	Germany.....	Stuttgart.....	July 16-17, 1938
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INDOOR MILE WINNERS, 1952

Source: Joseph M. Sheehan, *The New York Times*.

Met. (N. Y.) A. A. U.—Fred Wilt, New York A. C.....	4:14.6
Washington Star—Don Gehrmann, Wauwatosa, Wis.....	4:14.0
Philadelphia Inquirer—Don Gehrmann.....	4:10.2
Boston K. of C.—Don Gehrmann.....	4:09.3
Millrose A. A. (Wanamaker)—Don Gehrmann.....	4:11.2
Millwaukee Journal—Don Gehrmann.....	4:08.4
Boston A. A. (Hunter)—Don Gehrmann.....	4:08.9
New York A. C. (Baxter)—Fred Wilt.....	4:10.4
National A. A. U.—Bill Mack, E. Lansing, Mich.....	4:11.4
I. C. 4-A—Fred Dwyer, Villanova.....	4:13.0
New York K. of C.—Fred Wilt.....	4:11.4
Heptagonal—Dick Shea, Army.....	4:15.6
Big Ten—John Ross, Michigan.....	4:09.4
Cleveland K. of C.—Fred Wilt.....	4:10.8
Buffalo—Fred Wilt.....	4:10.1
Chicago Relays (Bankers)—Warren Druetzler, U. S. Army.....	4:09.7

BOSTON MARATHON, 1952

(Fifty-sixth running)

Leading Finishers

	h. m. s.
1. Doroteo Flores, Guatemala.....	2:31:53
2. Victor Dyrgeall, New York.....	2:36:40
3. Luis Valasquez, Guatemala.....	2:40:08
4. Thomas Jones, Philadelphia.....	2:43:29
5. Norman Tamanaha, Honolulu.....	2:51:55
6. Theodore Corbitt, New York.....	2:53:31
7. Seiki Kori, Turkey.....	2:54:15
8. Edo Romagnoli, New York.....	2:57:28
9. Louis White, New York.....	2:58:24
10. Arnold Briggs, Syracuse, N. Y.....	2:58:46
11. John Lafferty, Boston.....	3:04:49
12. John Kelley, South Acton, Mass.....	3:04:59
13. Michael O'Hara, New York.....	3:05:57
14. Aldo Scandurra, New York.....	3:08:39
15. Bill Steiner, New York.....	3:09:41
16. John DiComandrea, Mich. State Normal.....	3:12:01

The marathon distance is 26 miles 385 yards. The record for the Boston race is 2 hours 25 minutes 39 seconds, made by Yun Bok Su of Korea in 1947.

NATIONAL A. A. U. TRACK AND FIELD CHAMPIONS, 1952

Senior Outdoor

100 m.—Dean Smith, San Antonio A. C.	0:10.5
200 m.—Andy Stanfield, Grand Street Boys, N. Y.	0:21.1
400 m.—Mal Whitfield, U. S. Air Force	0:46.4
800 m.—Reginald Pearman, N. Y. Pioneer Club	1:53.5
1,500 m.—Wes Santee, Kansas A. C.	3:49.3
5,000 m.—Curtis Stone, New York A. C.	15:03.3
10,000 m.—Curtis Stone	30:33.4
110-m. hurdles—Harrison Dillard, Cleveland	0:13.7
200-m. hurdles—Ralph Person, San Antonio A. C.	0:22.5
400-m. hurdles—Charles Moore, New York A. C.	0:51.2
3,000-m. steeplechase—Bob McMullen, Olympic Club, San Francisco	9:25.3
3,000 m. walk—Henry H. Laskau, 92d Street Y.M.H.A., New York	12:52.7
Broad jump—George Brown, U. C. L. A.	25 ft. 9 in.
High jump—Walter Davis, San Antonio A. C.	6 ft. 10½ in.
Discus—Jim Dillon, Auburn	175 ft. 3¾ in.
Hammer—Thomas Bane, New York A. C.	179 ft. 1½ in.
Hop, step, and jump—Walter Ashbaugh, U. S. Army	50 ft. 8¾ in.
Javelin—Bill Miller, Navy Olympics	236 ft. 1 in.
Pole vault—Robert Richards, La Verne, Calif., and Don Laz, Aurora, Ill. (tie)	14 ft. 8 in.
Shot-put—Parry O'Brien, Los Angeles A. C.	57 ft. 4¾ in.
Team—New York A. C.	137 pts.
Decathlon—Robert Mathias, Tulare, Calif.	7,825 pts.
All-around—Raymond Bussard, Bridgewater (Va.) College	5,822 pts.
Pentathlon—Brayton Norton, Laguna Beach, Calif.	3,129 pts.
Marathon—Victor Dyrsgall, New York	2:38:24.4
400-m. relay—Navy Olympics (Scott, Jackson, Mason, Dennis)	0:42.7
1,600-m. relay—Los Angeles A. C. (Nicholson, Pruitt, Halderman, Lea)	3:19.9
2,900-m. relay—Navy Olympics (Nargren, Taylor, Chambers, Haynes)	7:06.9

Walking

10 km.—Henry H. Laskau, New York	0:47:53.4
15 km.—Gene Chicura, Elizabeth, N. J.	1:22:15
20 km.—Henry H. Laskau	1:37:43.4
25 km.—Adolph Weinacker, Detroit	2:12:05
30 km.—John Deni, Pittsburgh	2:52:46
35 km.—William Mihaló, Detroit	3:23:14
40 km.—William Mihaló	3:45:50
50 km.—Leo Sjogren, New York	3:46:51

Running

20 km.—Bob Black, Boston	1:10:17
25 km.—Browning Ross, Philadelphia	1:27

Mathias Sets World Mark

Bob Mathias, performing in his home town, Tulare, Calif., broke the world decathlon record by scoring 7,825 points in winning his fourth National A. A. U. title, also a record, in July, 1952. In August he became the first to repeat as Olympic decathlon champion and his world record soared to 7,887 points.

Lawrenceville, Plainfield Triumph

Lawrenceville (N. J.) School, with 23 points, won the 1952 National A. A. U. prep school track and field championship at Madison Square Garden on Feb. 16. Plainfield, N. J., topped the high schools with 14 counters.

Senior Indoor

60 yd.—John O'Connell, Manhattan	0:06.3
600 yd.—Charles Moore, New York A. C.	1:10.9
1,000 yd.—Don Gehrmann, Wauwatosa, Wis.	2:08.2
1 mile—Bill Mack, East Lansing, Mich.	4:11.4
3 miles—Horace Ashenfelter, New York A. C.	14:02.0
60-yd. high hurdles—Harrison Dillard, Cleveland	0:07.4
1 mile walk—Henry H. Laskau, 92d St. Y.M.H.A.	6:28.0
Sprint medley relay (440-100-220-300)—Manhattan (Vernon Dixon, John O'Connell, Louis Jones, Robert Carty)	1:53.1
1 mile relay—Fordham (Joseph Beilantoni, John Albert, William Persichetty, Thomas Murray)	3:20.3
2-mile relay—Georgetown (Carl Joyce, David Boland, Joseph LaPierre, Richard Saunders)	7:41.7
Broad jump—Lorenzo Wright, Detroit	23 ft. 9 in.
High jump—J. Lewis Hall, Florida	6 ft. 6 in.
Pole vault—Robert Richards, Illinois A. C.	15 ft.
Shot-put—Jim Fuchs, New York A. C.	56 ft. 3¾ in.
35-lb. weight—Gilbert Borjeson, Brown	58 ft. 10½ in.
Team—New York A. C.	27 pts.

Women's Outdoor

50 m.—Catherine Hardy, Fort Valley State College	0:06.4
100—Catherine Hardy	0:12.3
200—Catherine Hardy	0:25.5
80 hurdles—Constance Darnowski, German-American A. C., New York	0:12.1
400 relay—Police A. L. No. 1 (Barbara Husband, Dolores Queary, Cynthia Robinson, Mae Faggs)	0:52.5
280 shuttle hurdle relay—Tuskegee Institute (Lula Bell, Robbie Hendrix, Evelyn Lawlor, Theresa Manual)	0:41.6
Broad jump—Mabel Landry, C. Y. O., Chicago	18 ft. 1½ in.
High jump—Marion Boos, Police A. L.	4 ft. 11¾ in.
Discus—Janet Dicks, Harrisburg (Pa.) A. C.	114 ft. 7½ in.
Javelin—Marjorie Larney, Equitable Life, New York	126 ft. 3¾ in.
8-lb. shot-put—Amelia Bert, Little Rhody A. C., Providence, and Janet Dicks (tie)	37 ft. 9 in.
Baseball throw—Marion Brown, Deer Park, Texas	245 ft. 11 in.
Team—Police Athletic League, New York	72 pts.

Women's Indoor

50-yd.—Dolores Dwyer, German-American A. C.	0:06.2
100—Mae Faggs, Police A. L.	0:11.1
220—Mae Faggs	0:26.2
50 hurdles—Mrs. Nancy Phillips, German-American A. C.	0:07.5
280 shuttle hurdle relay—German-American A. C. (Miss Dwyer, Constance Darnowski, Loretta Blaul, Mrs. Phillips)	0:41.5
440 relay—Police A. L. No. 1 (Barbara Husband, Cynthia Robinson, Dolores Queary, Miss Faggs)	0:51.1
440 medley relay—Police A. L. No. 1 (Misses Husband, Robinson, Queary, Faggs)	0:52.1
Standing broad jump—Janet Moreau, Red Diamond A. C., Boston	8 ft. 10 in.
High jump—Marion Boos, P. A. L.	5 ft. ¾ in.
8-lb. shot-put—Amelia Bert, Little Rhody A. C.	40 ft. 11¾ in.
Basketball throw—Elizabeth Cipolt, C. Y. O., Chicago	90 ft. 6 in.
Team—Police Athletic League, New York	41 pts.

Scandurra, Collins Marathon Victors

Aldo Scandurra of New York won the marathon at the twenty-sixth annual West Coast Relays at Fresno, Calif., in 1952 and Paul Collins of Wofville, Nova Scotia, annexed the 26-mile 385-yard Canadian test at St. Hyacinthe, Quebec. Scandurra was clocked in 3 hours 1 minute 1.2 second, while Collins' time was 2:44:02.2.

History of the Mile Run

Year	Athlete and country	Where made	Time
1865	Webster, England	England	4:44.3
1866	C. B. Lawes, England	England	4:39
1868	W. M. Chinnery, England	England	4:33.2
1871	W. M. Chinnery, England	England	4:31.8
1874	Walter Slade, England	England	4:24.5
1881	Walter George, England	England	4:19.8
1884	Walter George, England	England	4:18.4
1895	F. E. Bacon, England	England	4:17
1895	T. P. Conneff, United States	United States	4:15.6
1911	John Paul Jones, United States	United States	4:15.4
1913	John Paul Jones, United States	United States	4:14.4
1915	Norman Taber, United States	United States	4:12.6
1923	Paavo Nurmi, Finland	Sweden	4:10.4
1931	Jules Ladoumègue, France	France	4:09.2
1933	John Lovelock, New Zealand	United States	4:07.6
1934	Glenn Cunningham, United States	United States	4:06.8
1937	Sydney Wooderson, England	England	4:06.4
1942	Gunder Hagg, Sweden	Sweden	4:06.2
1942	Gunder Hagg, Sweden	Sweden	4:04.6
1943	Arne Andersson, Sweden	Sweden	4:02.6
1944	Arne Andersson, Sweden	Sweden	4:01.6
1945	Gunder Hagg, Sweden	Sweden	4:01.4

SULLIVAN AWARD WINNERS

The James E. Sullivan Memorial Award is given annually to the amateur athlete voted by sports leaders as having done the most to advance the cause of sportsman-ship.

Year	Winner	Sport
1930	Robert T. Jones, Jr.	Golf
1931	Bernard E. Berlinger	Track and field
1932	James A. Bausch	Track and field
1933	Glenn Cunningham	Running
1934	William R. Bonthron	Running
1935	W. Lawson Little, Jr.	Golf
1936	Glenn Morris	Track and field
1937	J. Donald Budge	Tennis
1938	Donald R. Lash	Running
1939	Joseph W. Burk	Rowing
1940	J. Gregory Rice	Running
1941	Leslie MacMitchell	Running
1942	Cornelius Warmerdam	Pole vaulting
1943	Gilbert L. Dodds	Running
1944	Ann Curtis	Swimming
1945	Felix (Doc) Blanchard	Football
1946	Y. Arnold Tucker	Football
1947	John B. Kelly, Jr.	Rowing
1948	Robert B. Mathias	Track and field
1949	Richard T. Button	Figure skating
1950	Fred Wilt	Running
1951	Robert E. Richards	Track and field

WEIGHT LIFTING, 1952

A. A. U. Championships

(At New York, June 27-28)

	Pounds
Bantamweight—Richard Tom, Hawaii	628½
Featherweight—Richard Tomita, Hawaii	661
Lightweight—Tommy Kono, U. S. Army	798
Middleweight—Pete George, Akron, Ohio	860
Light heavyweight—Clyde Emrich, Camp Roberts, Calif.	864
Middle heavyweight—Norbert Schemansky, Detroit	886
Heavyweight—John Davis, York, Pa.	1,002
Team—Hawaii	16 pts.

GYMNASTICS

National A. A. U. Championships, 1952

(At State College, Pa., April 25-26)

	Points
All-around—Robert Stout, Philadelphia Turners	329.7
Calisthenics—Jean Cornstedt, Penn. State	56.4
Horizontal bar—Robert Stout	56.9
Long horse—Archie Durham, Pasadena City College	56.5
Parallel bars—Edward Scrobe, American Turners, New York	56.7
Still rings—George Wickler, U. S. Coast Guard	56.4
Rope climb—Don Perry, Pasadena City College	3.1s.
Side horse—Eugene Rabbitt, Florida State Gymkana Club	56.7
Tumbling—Richard Browning, Champaign, Ill.	28.9
Team—Philadelphia Turners	29 pts.

WOMEN

All-around—Mrs. Clara Schroth Lomady, Philadelphia Turners	220.0
Balance beam—Mrs. Meta Eiste, Chicago	55.0
Calisthenics—Mrs. Clara Schroth Lomady	56.6
Parallel bars—Mrs. Clara Schroth Lomady	56.0
Side horse—Mrs. Clara Schroth Lomady	52.5
Tumbling—Barbara Galleher, Dallas A. C.	27.4

(For National Collegiate A. A. and Eastern Intercollegiate Association champions see index.)

ROLLER DERBY

1952 World Series

(At Chicago Coliseum, May 28-June 1)

May 28—New York 30, Jersey 28; Chicago 30, Brooklyn 20.
May 29—New York 29, Brooklyn 27; Chicago 33, Jersey 26.
May 30—New York 31, Chicago 15; Brooklyn 36, Jersey 30.
May 31 (semi-final)—Chicago 32, Brooklyn 26.
June 1 (final)—New York 30, Chicago 13.

FINAL ROUND-ROBIN STANDING

	W.	L.	For	Points Agst.
New York Chiefs	4	0	120	83
Chicago Westerners	3	2	123	133
Brooklyn Red Devils	1	3	109	121
Jersey Jolters	0	3	84	99

BOXING

WHETHER it be called pugilism, prize fighting or boxing, there is no tracing "the Sweet Science" to any definite source. Tales of rivals exchanging blows for fun, fame or money go back to earliest recorded history and classical legend. There was a mixture of boxing and wrestling called the "pancratium" in the ancient Olympic Games and in such contests the rivals belabored one another with hands fortified with heavy leather wrappings that were sometimes studded with metal. More than one Olympic competitor lost his life at this brutal exercise.

There was little law or order in pugilism until Jack Broughton, one of the early champions of England, drew up a set of rules for the game in 1743. Broughton, called "the father of English boxing," also is credited with having invented boxing gloves. However, these gloves—or "mufflers" as they were called—were used only in teaching "the manly art of self-defense" or in training bouts. All professional

championship fights were contested with "bare knuckles" until 1892 when John L. Sullivan lost the heavyweight championship of the world to James J. Corbett in New Orleans in a bout in which both contestants wore regulation gloves.

The Broughton rules were superseded by the London Prize Ring Rules of 1838. The 8th Marquess of Queensberry, with the help of John G. Chambers, put forward the "Queensberry Rules" in 1866, a code that called for gloved contests. Amateurs took quickly to the Queensberry Rules, the professionals slowly.

There is no official international set of rules for boxing even today. Amateur organizations set rules for amateurs in different countries and professional rules set by boxing commissions vary even in different sections of the United States, but the variations are for the most part minor. A prize fighter doesn't have to change his style greatly to ply his trade anywhere in the world.

Boxing Statistics

Source: Nat Fleischer's *All-Time Ring Record Book*, published and copyrighted by The Ring Book Shop, Inc., Madison Square Garden, New York, N. Y.

Boxing's Biggest Gates

WF—Won on foul.		ND—No decision.		(1st)—First bout.	(2d)—Second bout.	(3d)—Third bout.	
Date	Winner; weight	Loser; weight		Rounds	Site	Receipts	Attendance
Sept. 22, 1927	Tunney (189½)-Dempsey (192½) (2d) ..			10	Soldier Field, Chicago.....	\$2,658,660	104,943
June 19, 1946	Louis (207)-Conn (187) (2d)		KO 8	Yankee Stadium, New York.....	1,925,564	45,266	
Sept. 23, 1926	Tunney (189½)-Dempsey (190) (1st)....		10	Sesquicentennial Sldm., Phila....	1,895,733	120,757	
July 2, 1921	Dempsey (188)-Carpentier (172)		KO 4	Boyle's 30 Acres, Jersey City.....	1,789,238	80,000	
Sept. 14, 1923	Dempsey (192½)-Firpo (216½)		KO 2	Polo Grounds, New York.....	1,188,603*	82,000	
July 21, 1927	Dempsey (194½)-Sharkey (196)		KO 7	Yankee Stadium, New York.....	1,083,530*	75,000	
June 22, 1938	Louis (198¾)-Schmeling (193) (2d)		KO 1	Yankee Stadium, New York.....	1,015,012*	70,000	
Sept. 24, 1935	Louis (199¼)-Max Baer (210½)		KO 4	Yankee Stadium, New York.....	1,000,832*	88,150	
June 25, 1948	Louis (213¼)-Walcott (194¼) (2d)		KO 11	Yankee Stadium, New York.....	841,739	42,667	
Sept. 12, 1951	Robinson (157½)-Turpin (159) (2d)		KO 10	Polo Grounds, New York.....	767,626	61,370	
June 12, 1930	Schmeling (188)-Sharkey (197) (1st)		WF 4	Yankee Stadium, New York.....	749,935	79,222	
June 22, 1937	Louis (197¼)-Braddock (197)		KO 8	Comiskey Park, Chicago.....	715,470	45,500	
July 26, 1928	Tunney (192)-Heeney (203½)		KO 11	Yankee Stadium, New York.....	691,014	45,890	
Sept. 29, 1941	Louis (202¼)-Nova (202½)		KO 6	Polo Grounds, New York.....	583,711	56,549	
June 19, 1936	Schmeling (192)-Louis (198) (1st)		KO 12	Yankee Stadium, New York.....	547,541	42,088	
Sept. 11, 1924	Wills (217)-Firpo (224½)		12	Boyle's 30 Acres, Jersey City.....	509,135	70,000	
Sept. 23, 1952	Marclano (184)-Walcott (196)		KO 13	Municipal Sldm., Phila.....	504,645	40,379	
July 16, 1926	Delaney (166½)-Berlenbach (174¼) (3d) ..		15	Ebbets Field, Brooklyn.....	461,789	49,186	
July 23, 1923	Leonard (134¼)-Tendler (133¼) (2d)		15	Yankee Stadium, New York.....	452,648	58,519	
July 4, 1919	Dempsey (187)-Willard (245)		KO 3	Toledo, Ohio.....	452,224	19,650	
June 18, 1941	Louis (199½)-Conn (174) (1st)		KO 13	Polo Grounds, New York.....	451,743	60,071	
June 21, 1932	Sharkey (205)-Schmeling (188) (2d)		15	Long Island City Bowl, N. Y.....	432,365	61,863	
June 14, 1934	Max Baer (209½)-Carnera (263¼)		KO 11	Long Island City Bowl, N. Y.....	428,000	56,000	
July 16, 1947	Graziano (154¼)-Zale (159) (2d)		KO 6	Chicago Stadium.....	422,918	18,547	
June 25, 1952	Maxim (173)-Robinson (157½)		KO 14	Yankee Stadium, New York.....	421,698	47,983	
Feb. 27, 1929	Sharkey (192)-Stribling (182)		10	Flamingo Park, Miami Beach, Fla..	405,000	40,000	
July 12, 1923	Firpo (214)-Willard (242)		KO 8	Boyle's 30 Acres, Jersey City.....	390,837	80,000	
May 12, 1923	{ Firpo (212)-McAuliffe (200)	{	KO 3	Yankee Stadium, New York.....	385,040	31,000	
	{ Willard (245)-Floyd Johnson (195)		KO 11				
June 27, 1929	Schmeling (187)- Uzcudun (192½) (1st) ..		15	Yankee Stadium, New York.....	378,902	65,000	
July 27, 1922	Leonard (134¾¼)-Tendler (134¼) (1st) ..		ND 12	Boyle's 30 Acres, Jersey City.....	367,862	54,685	
July 3, 1931	Schmeling (189)-Stribling (186½)		KO 15	Cleveland Stadium.....	349,415	37,396	
Sept. 20, 1939	Louis (200)-Pastor (183) (2d)		KO 11	Briggs Stadium, Detroit.....	347,870	33,868	
Sept. 27, 1946	Zale (160)-Graziano (154) (1st)		KO 6	Yankee Stadium, New York.....	342,497	39,827	
Sept. 19, 1946	Louis (211¼)-Mauriello (198½)		KO 1	Yankee Stadium, New York.....	335,063	38,494	

* Includes income from other sources, such as motion pictures or radio, or both.

HISTORY OF WORLD HEAVYWEIGHT CHAMPIONSHIP FIGHTS

(Bouts in which title changed hands)

Date	Where held	Winner, weight, age	Loser, weight, age	Rounds	Referee
July 8, 1889	Richburg, Miss.	John L. Sullivan, 198 (30)	Jake Kilrain, 195 (30)	75	John Fitzpatrick
(Last bare-knuckle title fight)					
Sept. 7, 1892	New Orleans, La.	James J. Corbett, 178 (26)	John L. Sullivan, 212 (33)	21	Prof. John Duffy
March 17, 1897	Carson City, Nev.	Bob Fitzsimmons, 167 (34)	James J. Corbett, 183 (30)	KO 14	George Siler
June 9, 1899	Coney Island, N. Y.	*James J. Jeffries, 206 (24)	Bob Fitzsimmons, 167 (37)	KO 11	George Siler
Feb. 23, 1906	Los Angeles	†Tommy Burns, 180 (24)	Marvin Hart, 188 (29)	20	James J. Jeffries
Dec. 26, 1908	Sydney, N. S. W.	Jack Johnson, 196 (30)	Tommy Burns, 176 (27)	KO 14	Hugh McIntosh
July 4, 1910	Reno, Nev.	Jack Johnson, 208 (31)	James J. Jeffries, 227 (34)	KO 15	Tex Rickard
(Jeffries came out of retirement in an effort to regain title)					
April 5, 1915	Havana, Cuba	Jess Willard, 230 (31)	Jack Johnson, 205½ (37)	KO 26	Jack Welch
July 4, 1919	Toledo, Ohio	Jack Dempsey, 187 (24)	Jess Willard, 245 (35)	KO 3	Ollie Pecord
Sept. 23, 1926	Philadelphia	†Gene Tunney, 189½ (28)	Jack Dempsey, 190 (31)	10	Pop Reilly
June 12, 1930	New York	Max Schmeling, 188 (24)	Jack Sharkey, 197 (27)	WF 4	Jim Crowley
June 21, 1932	Long Island City	Jack Sharkey, 205 (29)	Max Schmeling, 188 (26)	15	Gunboat Smith
June 29, 1933	Long Island City	Primo Carnera, 260½ (26)	Jack Sharkey, 201 (30)	KO 6	Arthur Donovan
June 14, 1934	Long Island City	Max Baer, 209½ (25)	Primo Carnera, 263½ (27)	KO 11	Arthur Donovan
June 13, 1935	Long Island City	Jim Braddock, 193½ (29)	Max Baer, 209½ (26)	15	Jack McAvoy
June 22, 1937	Chicago	Joe Louis, 197½ (23)	Jim Braddock, 197 (31)	KO 8	Tommy Thomas
June 22, 1949	Chicago	(a)Ezzard Charles, 181½ (27)	Joe Walcott, 195½ (35)	15	Davey Miller
Sept. 27, 1950	New York	(b)Ezzard Charles, 184½ (29)	Joe Louis, 218 (36)	15	Mark Conn
July 18, 1951	Pittsburgh	Joe Walcott, 194 (37)	Ezzard Charles, 182 (30)	KO 7	Buck McTiernan
Sept. 23, 1952	Philadelphia	Rocky Marciano, 184 (28)	Joe Walcott, 196 (38)	KO 13	Charley Daggert

* Lack of opposition caused Jeffries to retire in March 1905. He named Marvin Hart and Jack Root as the leading contenders and agreed to referee their fight at Reno, Nev., on July 3, 1905, with the stipulation that he would designate the winner the world champion. Hart, 190 (28), knocked out Root, 171 (29), in the twelfth round. † Burns claimed the title after defeating Hart. Philadelphia Jack O'Brien became another claimant after fighting a 20-round draw with Burns at Los Angeles on Nov. 28, 1906, with Jeffries as the referee. Burns, 180 (25), eliminated O'Brien, 167 (29), by defeating him in 20 rounds at Los Angeles, May 8, 1907. Charles Eytan was the referee. ‡ Tunney retired after his bout with Tom Heeney in New York on July 28, 1928. Tunney, 192 (30), knocked out Heeney, 203 (30½), in the eleventh round. Ed Forbes was the referee.

(a) Recognized by the National Boxing Association because Louis had announced his retirement on March 1, 1949. (b) Charles gained undisputed possession of the title by beating Louis, who came out of retirement in an effort to regain the crown.

BARE-KNUCKLE HEAVYWEIGHT CHAMPIONS, 1719-1892

- 1719—Jim Figg
 1734—George Taylor
 1740—Jack Broughton
 1750—Jack Slack
 1760—Bill Stevens
 1761—George Meggs
 1765—Bill Darts
 1777—Harry Sellers
 1780—Jack Harris
 1785—Tom (Jackling) Johnson
 1790—Big Ben Brain
 1792—Daniel Mendoza
 1795—John Jackson (retired)
 1802—Jem Belcher
 1805—Henry Pearce (Game Chicken)
 1808—John Gully (declined title)
 1809—Tom Cribb received belt, not transferable, and cup.
 1824—Tom Spring received four cups; resigned title.
 1825—Jem Ward received belt, not transferable.
 1838—James (Deaf) Burke claimed title.
 1839—William Thompson (Bendigo) beat Burke; claimed championship; received belt from Jem Ward.
 1841—Nick Ward (Jem's brother) beat Ben Caunt, Feb. 2. In return match Caunt beat Nick Ward and received belt by subscription. It was transferable.
 1845—Thompson beat Caunt and got belt.
 1850—Bill Perry (The Tipton Slasher), after fight with Paddock, claimed title.
 1851—Harry Broome won title from Perry.
 1853—Perry claimed title when Broome forfeited £200 to him in a match; retired from ring on Aug. 13.
 1857—Tom Sayers beat Perry for £200 a side and new belt.
 1860—Sayers retired after 42-round draw with John C. Heenan (The Benicia Boy), leaving old belt open for competition.
 1860—Sam Hurst (The Stalybridge Infant) beat Paddock and received belt.
 1861—Jem Mace beat Hurst.
 1862—Mace beat Tom King for £200 a side and the belt.
 1862—King beat Mace and claimed belt. Subsequently gave it up. Declined to meet Mace again. Mace claimed belt.
 1863—King beat Hegnan for £1,000 a side.
 1865—Joe Wormald beat Andrew Marsden for £200 a side and belt, which had been claimed by both. Belt was given to Wormald, who forfeited £120 to Mace.
 1866—Mace and Joe Goss fought draw with £200 a side and belt at stake.
 1867—Wormald received £200 forfeit from Ned O'Baldwin and claimed belt when O'Baldwin failed to appear at starting place.
 1867—Mace and O'Baldwin drew; £200 a side; title and belt in abeyance.
 1868—Wormald and O'Baldwin drew; £200 a side and title in America.
 1869—Mike McCoole beat Tom Allen in America for world championship.
 1870—Mace beat Allen in America for world championship.
 1871—Mace and Joe Coburn fought draw for championship; £500 a side.
 1882—John L. Sullivan defeated Paddy Ryan for American championship only; 9 rounds, Mississippi City, Miss. (London Prize Ring rules).
 1885—Jem Smith beat Jack Davis for £100 a side and championship of England.
 1887—Jake Kilrain and Jem Smith drew; \$10,000 and Police Gazette Championship of World belt.
 1889—John L. Sullivan beat Jake Kilrain, 75 rounds, Richburg, Miss., July 8, in last bare-knuckle championship fight; \$10,000 a side and Police Gazette Belt. (Sullivan claimed world title because of draw fought by Kilrain with Smith, England's titleholder.)

Other World Boxing Titleholders

LIGHT HEAVYWEIGHT CHAMPIONS

- 1903 —Jack Root, George Gardner
 1903-05—Bob Fitzsimmons
 1905-12—Philadelphia Jack O'Brien
 1912-16—Jack Dillon
 1916-20—Battling Levinsky
 1920-22—Georges Carpentier
 1923 —Battling Siki
 1923-25—Mike McTigue
 1925-26—Paul Berlenbach
 1926-27—Jack Delaney (a)
 1927 —Mike McTigue
 1927-29—Tommy Loughran (a)
 1930-34—Maxie Rosenbloom
 1934-35—Bob Olin
 1935-39—John Henry Lewis (a)
 1939 —Melio Bettina
 1939-41—Billy Conn (a)
 1941-48—Gus Lesnevich
 1948-50—Freddie Mills
 1950 —Joey Maxim

(a) Abandoned title.

MIDDLEWEIGHT CHAMPIONS

- 1867-72—Tom Chandler (bare knuckles).
 1872-81—Geo. Rourke (bare knuckles and gloves)
 1881-82—Mike Donovan (r)
 1884-91—Jack (Nonpareil) Dempsey
 1891-97—Bob Fitzsimmons
 1897-1907—Tommy Ryan, Kid McCoy, Philadelphia Jack O'Brien (t)
 1907-08—Stanley Ketchel
 1908 —Billy Papke
 1908-10—Stanley Ketchel
 1910-13—Billy Papke
 1913 —Frank Klaus
 1913-14—George Chip
 1914-17—Al McCoy
 1917-20—Mike O'Dowd
 1920-23—Johnny Wilson
 1923-26—Harry Greb
 1926 —Tiger Flowers
 1926-31—Mickey Walker (a)
 1931-32—Gorilla Jones (NBA); Ben Jeby (N. Y. Comm.)
 1932-37—Marcel Thil*
 1938 —Al Hostak and Solly Krieger (NBA)
 1939 —Solly Krieger, Al Hostak (NBA); Ceferino Garcia (N. Y. Comm.)
 1940 —Tony Zale (NBA); Ken Overlin (N. Y. Comm.)
 1941 —Tony Zale (NBA); Billy Soose (N. Y. Comm.)†
 1941-47—Tony Zale
 1947-48—Rocky Graziano
 1948 —Tony Zale
 1948-49—Marcel Cerdan
 1949-51—Jake La Motta
 1951 —Ray Robinson, Randy Turpin
 1951 —Ray Robinson

(r) Retired. (t) Title claimants. (a) Abandoned title.
 * Thil's victory on a foul over Jones gave him a clear title claim, but the New York Commission withheld recognition. At various times during the 1932-37 period, championship recognition by the different bodies was given to the following: Ben Jeby, Lou Brouillard, Vince Dundee, Teddy Yarosz, Babe Risko, and Freddy Steel. Fred Apostoli knocked out Thil in 10 rounds at the Polo Grounds, Sept. 23, 1937, but did not claim the title because of an agreement made with Thil. This was Thil's last fight. † Soose abandoned his claim to the title and Zale became the undisputed champion by defeating George Abrams, who had beaten Soose three times.

WELTERWEIGHT CHAMPIONS

- 1892-94—Mysterious Billy Smith
 1894-96—Tommy Ryan
 1896 —Kid McCoy (o)
 1900 —Rube Ferns, Matty Matthews

- 1901 —Rube Ferns
 1901-06—Joe Walcott*
 1906-07—Honey Melody
 1907 —Mike (Twin) Sullivan†
 1915 —Ted Lewis‡
 1919-22—Jack Britton
 1922-26—Mickey Walker
 1926-27—Pete Latzo
 1927-29—Joe Dundee
 1929-30—Jackie Fields
 1930 —Young Jack Thompson
 1930-31—Tommy Freeman
 1931 —Young Jack Thompson
 1931-32—Lou Brouillard
 1932-33—Jackie Fields
 1933 —Young Corbett 3d
 1933-34—Jimmy McLarnin
 1934 —Barney Ross
 1934-35—Jimmy McLarnin
 1935-38—Barney Ross
 1938-40—Henry Armstrong
 1940-41—Fritzie Zivic
 1941-46—Freddie Cochrane
 1946-47—Marty Servo (r)
 1947-51—Ray Robinson (a)
 1951 —Johnny Bratton (NBA)
 1951 —Kid Gavilan

(o) Outgrow class. * Walcott lost on foul to Dixie Kid in 1904, but decision was disputed. Dixie Kid went abroad, outgrow class, and Walcott was again recognized as the champion. † Sullivan outgrow class. The title was claimed by Jimmy Gardner, Jimmy Clabby, Ray Bronson, Clarence (Kid) Ferns, Mike Gibbons, Kid Graves, Mike Glover, Ted Lewis, and Jack Britton but no one received recognition as titleholder until Ted Lewis established his claim in 1915. ‡ Lewis outpointed Britton to gain undisputed possession of the crown on Aug. 31, 1915, and fought Britton a number of times over a period of four years with varying results until March 17, 1919, when Britton became the undisputed titleholder by knocking out Lewis. (r) Retired. (a) Abandoned title.

LIGHTWEIGHT CHAMPIONS

- | | |
|---|-------------------------|
| 1885-96—Jack McAuliffe* | 1925-26—Rocky Kansas |
| 1896-99—Kid Lavigne | 1926-30—Sammy Mandell |
| 1899-02—Frank Erne | 1930 —Al Singer |
| 1902-08—Joe Gans | 1930-33—Tony Canzoneri |
| 1908-10—Battling Nelson | 1933-35—Barney Ross |
| 1910-12—Ad Wolgast | 1935-36—Tony Canzoneri |
| 1912-14—Willie Ritchie | 1936-38—Lou Ambers |
| 1914-17—Freddy Welsh | 1938-39—Henry Armstrong |
| 1917-25—Benny Leonard (r) | 1939-40—Lou Ambers |
| 1925 —Jimmy Goodrich | 1940-41—Lew Jenkins |
| | 1941-42—Sammy Angott† |
| 1943 —Beau Jack, Bob Montgomery (N. Y. Comm.), Sammy Angott (NBA). | |
| 1944 —Beau Jack, Bob Montgomery (N. Y. Comm.), Sammy Angott, Juan Zurita (NBA). | |
| 1945 —Bob Montgomery (N. Y. Comm.), Juan Zurita, Ike Williams (NBA). | |
| 1946-47—Bob Montgomery (N. Y. Comm.), Ike Williams (NBA). | |
| 1947-51—Ike Williams | |
| 1951-52—James Carter | |
| 1952 —Lauro Salas, James Carter | |

* McAuliffe was champion of America, but never held the world crown, his battle for the world title with Jim Carney of England in 1887 resulting in a 74-round draw. (r) Retired. † Angott announced his retirement on Nov. 13, 1942, leaving the title vacant, but approximately two months later announced his comeback as challenger for the crown.

FEATHERWEIGHT CHAMPIONS

- 1889 —Freddy Bogan
 1890 —Billy Murphy
 1892-1900—George Dixon

Featherweight Champions—(Cont.)

- 1900-01—Terry McGovern
 1901 —Young Corbett (o)
 1904-08—Brooklyn Tommy Sullivan
 1908-12—Abe Attell
 1912-23—Johnny Kilbane
 1923 —Eugene Criqui
 1923-25—Johnny Dundee (o)
 1925-27—Louis (Kid) Kaplan (o)
 1927-28—Benny Bass
 1928 —Tony Canzoneri
 1928-29—Andre Routis
 1929-32—Battling Battalino (o)
 1932 —Tommy Paul (NBA); Kid Chocolate (N. Y. Comm.).
 1933-36—Freddie Miller
 1936-37—Petey Sarron
 1937-38—Henry Armstrong (a)
 1938-40—Joey Archibald
 1940-41—Harry Jeffra, Joey Archibald
 1941-42—Chalky Wright
 1942-48—Willie Pep
 1948-49—Sandy Saddler
 1949-50—Willie Pep
 1950 —Sandy Saddler

(o) Outgrew class. (a) Abandoned title.

BANTAMWEIGHT CHAMPIONS

- 1890-92—George Dixon (o)
 1894-99—Jimmy Barry (r)
 1899-1900—Terry McGovern (o)
 1901 —Harry Harris (o)
 1902-03—Harry Forbes
 1903-04—Frankie Neil
 1904 —Joe Bowker (o)
 1905-07—Jimmy Walsh (o)
 1910-14—Johnny Coulton
 1914-17—Kid Williams
 1917-20—Pete Herman
 1920-21—Joe Lynch
 1921 —Pete Herman
 1921-22—Johnny Buff
 1922-24—Joe Lynch
 1924 —Abe Goldstein
 1924-25—Eddie (Cannonball) Martin
 1925 —Charlie (Phil) Rosenberg (d)
 1929-35—Al Brown
 1935-36—Baltazar Sangchili
 1936 —Tony Marino
 1936-37—Sixto Escobar
 1937-38—Harry Jeffra
 1938-40—Sixto Escobar (r)
 1940-42—Lou Salica
 1942-47—Manuel Ortiz
 1947 —Harold Dade
 1947-50—Manuel Ortiz
 1950 —Vic Towel

(o) Outgrew class. (r) Retired. (d) Deprived of title when unable to make weight for championship bout.

FLYWEIGHT CHAMPIONS

- 1916-23—Jimmy Wilde
 1923-25—Pancho Villa*
 1925 —Frankie Genaro
 1925-27—Fidel La Barba (r)
 1927 —Corporal Izzy Schwartz†
 1930 —Midget Wolgast (N. Y. Comm.); Frankie Genaro (NBA).
 1931-32—Young Perez‡
 1932-35—Jackie Brown
 1935-38—Benny Lynch (r)
 1939 —Peter Kane (a)
 1943-47—Jackie Paterson (d)
 1947-50—Rinty Monaghan (r)
 1950 —Terry Allen
 1950-52—Dado Marino
 1952 —Yoshio Shirai

* Villa died in 1925, Genaro claiming title. † Schwartz was recognized as champion by N. Y. Comm., but conditions in the class became confused and were not straightened out until an elimination tourney was held in November, 1929. ‡ Perez was recognized as world's champion by the International Boxing Union of Europe. (r) Retired. (a) Abandoned title. (d) Deprived of title.

Famous Firsts in Boxing

First modern ring champion: Jim Figg of England, 1719.

First set of boxing rules and first set of boxing gloves: Made by Jack Broughton, 1743.

First championship fight in America: Jacob Hyer beat Tom Beasley, 1816.

First glove fight: Between two English boxers, at Aix-la-Chapelle, France, October 8, 1818.

First contest in which motion pictures were filmed for general display to the public: Bob Fitzsimmons vs. Jim Corbett bout at Carson City, Nevada, 1897.

First million-dollar gate: Jack Dempsey vs. Georges Carpentier at Boyle's Thirty Acres, Jersey City, N. J., July 2, 1921 (\$1,789,238).

First round-by-round fight broadcast: Dempsey vs. Carpentier, 1921, J. Andrew White announcer.

First fight to draw over 100,000 people: Jack Dempsey vs. Gene Tunney at Philadelphia, 1926 (120,757).

First fight on television (publicly screened): Eric Boon vs. Arthur Danahar, Harringay Arena, London, England, February 23, 1939.

Neil Memorial Award Winners

The Edward J. Neil Memorial Plaque is given annually by the Boxing Writers' Association of New York to the individual who has done the most to further the cause of the sport. The winners:

- | | |
|---|----------------------|
| 1938 Jack Dempsey | 1945 James J. Walker |
| 1939 Billy Conn | 1946 Tony Zale |
| 1940 Henry Armstrong | 1947 Gus Lesnevich |
| 1941 Joe Louis | 1948 Ike Williams |
| 1942 Sgt. Barney Ross | 1949 Ezzard Charles |
| 1943 All U. S. boxers in service | 1950 Ray Robinson |
| 1944 Lt. Comdr. Benny Leonard, U.S.M.S. | 1951 Joe Walcott |

WORLD CHAMPIONSHIP FIGHTS IN 1952

Source: Murray Goodman, Publicity Director, International Boxing Club.

Date	Winner	Loser	Title at stake	Where held	Rounds	Attendance
Jan. 25	Vic Towel	Peter Keenan	Bantamweight	Johannesburg	15	
Feb. 4	Kid Gavilan	Bobby Dykes	Welterweight	Miami, Fla.	15	17,000
March 13	Ray Robinson	Carl Olson	Middleweight	San Francisco	15	11,000
April 1	James Carter	Lauro Salas	Lightweight	Los Angeles	15	7,678
April 16	Ray Robinson	Rocky Graziano	Middleweight	Chicago	KO 3	22,264
May 14	*Lauro Salas	James Carter	Lightweight	Los Angeles	15	8,000
May 19	*Yoshio Shirai	Dado Marino	Flyweight	Tokyo	15	42,000
June 5	Joe Walcott	Ezzard Charles	Heavyweight	Philadelphia	15	21,599
June 25	Joe Maxim	Ray Robinson	Light heavyweight	New York	KO 14	47,983
July 7	Kid Gavilan	Gil Turner	Welterweight	Philadelphia	KO 11	39,025
Sept. 23	*Rocky Marciano	Joe Walcott	Heavyweight	Philadelphia	KO 13	40,379
Oct. 5	Kid Gavilan	Billy Graham	Welterweight	Havana	15	40,000
Oct. 15	*James Carter	Lauro Salas	Lightweight	Chicago	15	5,283

* Won title.

Joe Louis' Title Fights

1937

June 22	James J. Braddock, Chicago	KO 8
(Won heavyweight championship of the world)		

Aug. 30	Tommy Farr, Yankee Stadium	W 15
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1938

Feb. 23	Nathan Mann, Madison Square Garden	KO 3
Apr. 1	Harry Thomas, Chicago	KO 5
June 22	Max Schmeling, Yankee Stadium	KO 1

1939

Jan. 25	John Henry Lewis, Madison Sq. Garden	KO 1
Apr. 17	Jack Roper, Los Angeles	KO 1
June 28	Tony Galento, Yankee Stadium	KO 4
Sept. 20	Bob Pastor, Detroit	KO 11

1940

Feb. 9	Arturo Godoy, Madison Square Garden	W 15
Mar. 29	Johnny Paycheck, Madison Square Garden	KO 2
June 20	Arturo Godoy, Yankee Stadium	KO 8
Dec. 16	Al McCoy, Boston	KO 6

1941

Jan. 31	Red Burman, Madison Square Garden	KO 5
Feb. 17	Gus Dorazio, Philadelphia	KO 2
Mar. 21	Abe Simon, Detroit	KO 13
Apr. 8	Tony Musto, St. Louis	KO 9
May 23	Buddy Baer, Washington, D. C.	W disq. 7
June 18	Billy Conn, Polo Grounds	KO 13
Sept. 29	Lou Nova, Polo Grounds	KO 6

1942

Jan. 9	Buddy Baer, Madison Square Garden	KO 1
Mar. 27	Abe Simon, Madison Square Garden	KO 6

1946

June 19	Billy Conn, Yankee Stadium	KO 8
Sept. 18	Tami Mauriello, Yankee Stadium	KO 1

1947

Dec. 5	Joe Walcott, Madison Square Garden	W 15
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1948

June 25	Joe Walcott, Yankee Stadium	KO 11
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1950

Sept. 27	Ezzard Charles, Yankee Stadium	L 15
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A crowd of 39,025 paid \$269,677, a record for the division, to see Kid Gavilan retain his world welterweight championship by knocking out Gil Turner in the eleventh round at Municipal Stadium, Philadelphia, on July 7, 1952.

A. A. U. CHAMPIONSHIPS, 1952

(At Boston, April 7-9)

112 lb.—Billy Hill, Washington, D. C.
119 lb.—David Moore, Springfield, Ohio
125 lb.—Mac Martinez, San Jose, Calif.
132 lb.—John Barnes, Detroit
139 lb.—Isaac Vaughn, Cleveland
147 lb.—Andy Anderson, Northeast Naval District
156 lb.—Ernest Anthony, New York
165 lb.—Floyd Patterson, New York
178 lb.—Eldridge Thompson, Washington, D. C.
Heavyweight—Jack Scheberies, Oakland, Calif.
Team—New York
(For National Collegiate A. A. and Eastern Intercollegiate Association champions see index.)

PROFESSIONAL WEIGHT LIMITS

	lbs.
Flyweight	112
Bantamweight	118
Featherweight	126
Lightweight	135
Welterweight	147
Middleweight	160
Light heavyweight	175
Heavyweight	over 175

CONTRACT BRIDGE, 1952

Source: The American Contract Bridge League.

Summer National Championships

(At Cincinnati, July 27-Aug. 5)

Masters pairs—William Joseph, Paterson, N. J.—William W. Jackson, Brockport, N. Y.
Men's pairs—Arthur C. Grau, Ormond Beach, Fla.—William Rosen, Chicago
Women's pairs—Mrs. James C. Fairchild—Mrs. Sidney Lee, Dallas, Texas
Masters mixed team—Mrs. Robert Burnstein, Miami, Fla.; Mrs. E. J. Seligman, New York; Al Roth, Washington, D. C.; Harry Harkavy, Miami Beach, Fla.
Masters knockout team—Howard Schenken, George Rapee, Sam Stayman, B. J. Becker, New York; John Crawford, Philadelphia
Non-masters team—Paul E. Gable, Sr., Worthington, Ohio; Frank Westreich, Stanley Schwartz, Jr., Dr. Milton Levitan, Columbus, Ohio

ICE HOCKEY

ICE HOCKEY, by birth and upbringing a Canadian game, is an offshoot of field hockey. Some historians state that the first ice hockey game was played in Montreal in December, 1879, between two teams composed almost exclusively of McGill University students, but others assert that Kingston, Ont., or Halifax, N. S., were scenes of earlier hockey games. In the Montreal game of 1879 there were fifteen players on a side and they used an assortment of crude sticks to keep the puck in motion. Early rules allowed nine men on a side but the number was reduced to seven in 1886 and finally reduced to six, the standard of today.

The first governing body of the sport was the Amateur Hockey Association of Canada, organized in 1887. In the winter of 1894-95 a group of college students from the United States visited Canada, saw hockey played, became enthused over the game and introduced it as a winter sport when they returned home. This was the

start of hockey in the United States. The first professional league was the International Hockey League that operated, strangely enough, not in Canada but in northern Michigan in 1904-06 and included as players such famous stars as Cyclone Taylor and Hod Stuart, later included in the Hockey Hall of Fame.

Until 1910, professionals and amateurs were allowed to play together on "mixed teams," but this arrangement ended with the formation of the first "big league," the National Hockey Association, in eastern Canada in 1910. The Pacific Coast League, to provide professional hockey in the West, was organized in 1911 with Seattle (and later other American cities) included in the circuit. The National Hockey League replaced the National Hockey Association in 1917. Boston, in 1924, was the first American city to join that circuit. The Stanley Cup, top trophy of hockey, was competed for by "mixed teams" from 1894 to 1910, thereafter by professionals.

Professional Statistics

Source: Betty Waish, Hockey Department, Madison Square Garden.

STANLEY CUP WINNERS

Emblematic of world professional championship.

1894—Montreal A. A. A.	1908—Montreal Wanderers	1923—Ottawa Senators	1938—Chicago Black Hawks
1895—Montreal Victorias	1909—Ottawa Senators	1924—Montreal Canadiens	1939—Boston Bruins
1896—Winnipeg Victorias	1910—Montreal Wanderers	1925—Victoria Cougars	1940—N. Y. Rangers
1897—Montreal Victorias	1911—Ottawa Senators	1926—Montreal Maroons	1941—Boston Bruins
1898—Montreal Victorias	1912—Quebec Bulldogs	1927—Ottawa Senators	1942—Toronto Maple Leafs
1899—Montreal Victorias	1913—Quebec Bulldogs	1928—N. Y. Rangers	1943—Detroit Red Wings
1900—Montreal Shamrocks	1914—Toronto	1929—Boston Bruins	1944—Montreal Canadiens
1901—Winnipeg Victorias	1915—Vancouver Millionaires	1930—Montreal Canadiens	1945—Toronto Maple Leafs
1902—Montreal A. A. A.	1916—Montreal Canadiens	1931—Montreal Canadiens	1946—Montreal Canadiens
1903—Ottawa Silver Seven	1917—Seattle Metropolitans	1932—Toronto Maple Leafs	1947—Toronto Maple Leafs
1904—Ottawa Silver Seven	1918—Toronto Arenas	1933—N. Y. Rangers	1948—Toronto Maple Leafs
1905—Ottawa Silver Seven	1919—Series unfinished†	1934—Chicago Black Hawks	1949—Toronto Maple Leafs
1906—Montreal Wanderers	1920—Ottawa Senators	1935—Montreal Maroons	1950—Detroit Red Wings
1907—Kenora Thistles	1921—Ottawa Senators	1936—Detroit Red Wings	1951—Toronto Maple Leafs
1907—Mont. Wanderers*	1922—Toronto St. Patricks	1937—Detroit Red Wings	1952—Detroit Red Wings

* March.
† The Montreal Canadiens and Seattle, P.C.H.L. champions, had played five games at Seattle, Wash., when an influenza epidemic (which took the life of Joe Hall of the Canadiens) caused the Department of Health to stop the series. Each team won two games, with one contest ending in a tie.

FINAL 1951-52 NATIONAL HOCKEY LEAGUE STANDING
(Regular season)

	Detroit	Montreal	Toronto	Boston	New York	Chicago	W.	L.	T.	Pts.	Goals	
	W. L. T.	W. L. T.	W. L. T.	W. L. T.	W. L. T.	W. L. T.					For	Agst.
Detroit.....	.....	9 2 3	6 4 4	8 3 3	9 3 2	12 2 0	44	14	12	100	215	133
Montreal.....	2 9 3	.....	8 5 1	5 7 2	9 4 1	10 1 3	34	26	10	78	195	164
Toronto.....	4 6 4	5 8 1	.....	7 2 5	7 3 4	6 6 2	29	25	16	74	168	157
Boston.....	3 8 3	7 5 2	2 7 5	.....	4 6 4	9 3 2	25	29	16	66	162	176
New York.....	3 9 2	4 9 1	3 7 4	6 4 4	.....	7 5 2	23	34	13	59	192	219
Chicago.....	2 12 0	1 10 3	6 6 2	3 9 2	5 7 2	.....	17	44	9	43	156	241

NATIONAL HOCKEY LEAGUE

Stanley Cup Play-offs, 1952

SERIES C—FINAL

- *April 10—Detroit 3, Montreal 1
- *April 12—Detroit 2, Montreal 1
- April 13—Detroit 3, Montreal 0
- April 15—Detroit 3, Montreal 0
- * At Montreal.

FINAL STANDING OF THE CLUBS

	W.	L.	Pts.	Goals	
				For	Agst.
Detroit.....	4	0	8	11	2
Montreal.....	0	4	0	2	11

Series A—Semifinal

- *March 25—Detroit 3, Toronto 0
- *March 27—Detroit 1, Toronto 0
- March 29—Detroit 6, Toronto 2
- April 1—Detroit 3, Toronto 1
- * At Detroit.

FINAL STANDING OF THE CLUBS

	W.	L.	Pts.	Goals	
				For	Agst.
Detroit.....	4	0	8	13	3
Toronto.....	0	4	0	3	13

Series B—Semifinal

- *March 25—Montreal 5, Boston 1
- *March 27—Montreal 4, Boston 0
- March 30—Boston 4, Montreal 1
- April 1—Boston 3, Montreal 2
- *April 3—Boston 1, Montreal 0
- April 6—Montreal 3, Boston 2†
- *April 8—Montreal 3, Boston 1
- * At Montreal. † Double overtime.

FINAL STANDING OF THE CLUBS

	W.	L.	Pts.	Goals	
				For	Agst.
Montreal.....	4	3	8	18	12
Boston.....	3	4	6	12	18

N. H. L. All-Star Game Record

- 1947-48—All-Stars 4, Toronto 3
- 1948-49—All-Stars 3, Toronto 1
- 1949-50—All-Stars 3, Toronto 1
- 1950-51—Detroit 7, All-Stars 1
- 1951-52—1st All-Stars 2, 2d All-Stars 2
- 1952-53—1st All-Stars 1, 2d All-Stars 1

Leading 1951-52 Scorers

Regular Season

	Gms.	Gl.	As.	Pts.	PIM
Gordie Howe, Detroit.....	70	47	39	86	78
Ted Lindsay, Detroit.....	70	30	39	69	123
Elmer Lach, Montreal.....	70	15	50	65	36
Don Raleigh, New York.....	70	19	42	61	14
Sid Smith, Toronto.....	70	27	30	57	6
Bernie Geoffrion, Mont.	67	30	24	54	66
Bill Mosienko, Chicago.....	70	31	22	53	10
Sid Abel, Detroit.....	62	17	36	53	32
Ted Kennedy, Toronto.....	70	19	33	52	33
Milt Schmidt, Boston.....	69	21	29	50	57
Johnny Peirson, Boston.....	63	20	30	50	30
George Gee, Chicago.....	70	18	31	49	39
Ted Sloan, Toronto.....	68	25	23	48	89
Red Kelly, Detroit.....	67	16	31	47	16
Maurice Richard, Mont.	48	27	17	44	44
Ed Slowinski, New York.....	64	21	22	43	18
Metro Prystai, Detroit.....	69	21	22	43	16
Paul Ronty, New York.....	65	12	31	43	16
Paul Meger, Montreal.....	69	24	18	42	44
Max Bentley, Toronto.....	69	24	17	41	40
Cal Gardner, Toronto.....	70	15	26	41	40
Billy Reay, Montreal.....	68	7	34	41	20
Dick Gamble, Montreal.....	64	23	17	40	8
Gaye Stewart, New York.....	69	15	25	40	22
Gus Bodnar, Chicago.....	69	14	26	40	26
Harry Watson, Toronto.....	70	22	17	39	18

Stanley Cup Play-offs

	Gms.	Gl.	As.	Pts.	PIM
Ted Lindsay, Detroit.....	8	5	2	7	8
Floyd Curry, Montreal.....	11	4	3	7	6
Metro Prystai, Detroit.....	8	2	5	7	0
Gordie Howe, Detroit.....	8	2	5	7	2
Maurice Richard, Mont.	11	4	2	6	6
John Wilson, Detroit.....	8	4	1	5	5
Glen Skov, Detroit.....	8	1	4	5	16
Tony Leswick, Detroit.....	8	3	1	4	22
Bernie Geoffrion, Mont.	11	2	1	4	6
Ed Sandford, Boston.....	7	2	2	4	0
Sid Abel, Detroit.....	7	2	2	4	12
Marty Pavelich, Detroit.....	8	2	2	4	2
Billy Reay, Montreal.....	10	2	2	4	7

1951-52 ALL-STAR SELECTIONS

	First Team	Second Team
G.....	Terry Sawchuk, Detroit	Henry, Boston
D.....	Red Kelly, Detroit	Buller, New York
D.....	Doug Harvey, Montreal	Thomson, Toronto
C.....	Elmer Lach, Montreal	Schmidt, Boston
R. W.....	Gordie Howe, Detroit	Richard, Montreal
L. W.....	Ted Lindsay, Detroit	Smith, Toronto

1951-52 TROPHY WINNERS

- Hart (most valuable player)—Gordie Howe, Detroit
- Ross (leading scorer)—Gordie Howe, Detroit
- Lady Byng (sportsmanship)—Sid Smith, Toronto
- Calder (top rookie)—Bernie Geoffrion, Montreal
- Vezina (leading goaltender)—Terry Sawchuk, Detroit

HOCKEY'S HALL OF FAME

Kingston, Ontario

Donald H Bain	Eddie Gerard	Joe Malone	George Richardson
Hobey Baker	Frank (Moose) Goheen	Frank McGee	Arthur H. Ross
R. R. (Dickie) Boon	Mike Grant	Howie Morenz	Eddie Shore
Russell Bowie	Silas Griffiths	Frank Nighbor	Nelson (Nels) Stewart
Aubrey Clapper	Ernest (Moose) Johnson	Frank Patrick	Hod Stuart
Bill Cook	Aurel Jollat	Lester Patrick	Fred (Cyclone) Taylor
Allan Davidson	E. C. (Newsy) Lalonde	Tom Phillips	Harry J. Trihey
Chas. G. Drinkwater	Duncan (Mickey) MacKay	Harvey Pulford	Georges Vezina
Charles Gardiner			

Red Wings Sweep Play-Offs

In 1952 the Detroit Red Wings set a scoring an eight-game sweep to gain the National Hockey League play-off record by Stanley Cup.

AMERICAN LEAGUE

Final 1951-52 Standing of the Clubs
(Regular season)

EASTERN DIVISION

	W.	L.	T.	Pts.	For	Agst.	Goals
Hershey Bears.....	35	28	5	75	256	215	
Providence Reds.....	32	33	3	67	263	270	
Buffalo Bisons.....	28	36	4	60	230	298	
Syracuse Warriors.....	25	42	1	51	211	272	

WESTERN DIVISION

	W.	L.	T.	Pts.	For	Agst.	Goals
*Pittsburgh Hornets...	46	19	3	95	267	179	
Cleveland Barons.....	44	19	5	93	265	166	
Cincinnati Mohawks...	29	33	6	64	183	228	
St. Louis Flyers.....	28	39	1	57	256	262	
Indianapolis Capitals..	22	40	6	50	232	273	

* Won play-offs.

Leading Scorers
(Regular season)

	Gms.	Gl.	As.	Pts.	PIM
Ray Powell, Providence..	67	35	62	97	6
Steve Wochy, Cleveland..	68	37	41	78	42
Ab DeMarco, Buffalo....	67	28	49	77	34
Jackie Hamilton, St. Louis	67	27	50	77	34
Barry Sullivan, Providence	61	25	47	72	12
Kelvin Burnett, Syracuse	68	25	43	68	10
Earl Reibel, Indianapolis..	68	33	34	67	8
Grant Warwick, Buffalo..	55	24	41	65	35
Bob Hassard, Pittsburgh..	67	18	46	64	36
Paul Gladu, Providence..	66	31	33	64	30

Champions

1941—Cleveland	1947—Hershey
1942—Indianapolis	1948—Cleveland
1943—Buffalo	1949—Providence
1944—Buffalo	1950—Indianapolis
1945—Cleveland	1951—Cleveland
1946—Buffalo	1952—Pittsburgh

PACIFIC COAST LEAGUE

Final 1951-52 Standing of the Clubs
(Regular season)

	W.	L.	T.	Pts.	For	Agst.	Goals
New Westminster Royals	40	19	11	91	286	200	
*Saskatoon Quakers...	35	21	14	84	273	225	
Tacoma Rockets.....	34	25	11	79	292	243	
Seattle Ironmen.....	30	31	9	69	252	280	
Edmonton Flyers.....	30	32	8	68	244	246	
Victoria Cougars.....	25	38	7	57	242	296	
Calgary Stampeders....	24	37	9	57	278	320	
Vancouver Canucks....	23	38	9	55	225	282	

* Won play-offs.

Leading Scorers
(Regular season)

	Gms.	Gl.	As.	Pts.	PIM
George Agar, Calgary....	70	38	55	93	61
Eddie Dorohoy, Victoria..	68	29	56	85	66
Gordon Fashoway, N. W..	70	51	34	85	46
John Chad, Saskatoon...	67	35	47	82	6
Alex Kaleta, Saskatoon..	62	38	44	82	23
Wingy Johnston, Tacoma	70	32	45	77	8
Barton Bradley, Tacoma..	70	37	39	76	28
Guyle Fielder, New West.	57	25	50	75	10
Gordie Kerr, Tacoma....	70	28	47	75	40

HOME ATTENDANCE FIGURES

(Unofficial)

	1951-52	1950-51
Montreal Canadiens.....	503,993	502,408
Toronto Maple Leafs.....	467,356	471,516
Detroit Red Wings.....	419,862	400,731
New York Rangers.....	376,645	349,251
Chicago Black Hawks.....	297,316	330,341
Boston Bruins.....	245,144	308,650
Totals.....	2,310,316	2,362,837

Amateur Ice Hockey

A. H. A. OF THE U. S.

Senior Open Champion—Johnstown Jets
EASTERN LEAGUE

	W.	L.	T.	Pts.	For	Agst.	Goals
*Johnstown Jets.....	29	21	5	83	264	186	
Boston Olympics.....	28	27	1	77	246	240	
New Haven Tomahawks...	37	27	2	76	256	241	
Springfield Indians....	33	29	4	70	247	235	
Atlantic City Sea Gulls	26	36	3	55	255	281	
New York Rovers.....	25	34	2	52	233	231	
Washington Lions.....	9	24	3	21	124	155	
Philadelphia Falcons....	8	17	0	16	68	124	

* Won play-offs.

INTERNATIONAL LEAGUE

	W.	L.	T.	Pts.	For	Agst.	Goals
Grand Rapids Rockets...	29	13	6	64	212	156	
*Toledo Mercurys.....	24	18	6	54	210	191	
Troy Bruins.....	23	19	6	52	211	180	
Chatham Maroons.....	22	23	3	47	206	218	
Detroit Hettche.....	10	35	3	23	138	232	

* Won play-offs.

METROPOLITAN (NEW YORK) LEAGUE

	W.	L.	T.	Pts.	For	Agst.	Goals
*Jamaica Hawks.....	10	4	1	21	77	42	
Brooklyn Torpedoes....	8	4	3	19	69	58	
Sands Point Tigers....	4	8	3	11	49	65	
Manhattan Arrows.....	2	8	5	9	43	73	

* Won play-offs.

1952 OLYMPIC TOURNAMENT

(At Oslo, Norway)

Final Standing of the Teams

	W.	L.	T.	Pts.	For	Agst.	Goals
Canada.....	7	0	1	15	71	14	
United States.....	6	1	1	13	43	21	
*Sweden.....	6	2	0	12	48	19	
Czechoslovakia.....	6	2	0	12	47	18	
Switzerland.....	4	4	0	8	40	40	
Poland.....	2	5	1	5	21	56	
Finland.....	2	6	0	4	21	60	
Germany.....	1	6	3	3	21	83	
Norway.....	0	8	0	0	15	46	

* Sweden won third-place play-off and European championship by beating Czechoslovakia, 5-3.

OTHER CHAMPIONS, 1952

Canadian

Alexander Cup—Quebec Aces
Allan Cup (senior amateur)—Fort Frances (Ont.)
CanadiansMemorial Cup (junior amateur)—Guelph (Ont.)
Biltmores
Intercollegiate—Montreal

United States

National amateur—Hibbing, Minn.
National Collegiate A. A.—Michigan
Pentagonal League—Yale

BOBSLEDDING, 1952

National A. A. U. Championships

(At Lake Placid, N. Y., Feb. 24)

Four-man (Billy Fiske Memorial Trophy)—Saranac Lake (N. Y.) B. C. (Robert Duprey, driver; Ralph Hartman, Gerry Morgan, Robert Swain, brakel). Times—First heat, 1:16.16; second, 1:15.70; third, 1:14.57; fourth, 1:14.55. Total time—5:00.78.

Two-man (Buba Monahan Memorial Trophy)—Lake Placid B. C. (Arthur Tyler, driver; Edward Seymour, brakel; both from Rochester, N. Y.). Times—First heat, 1:23.46; second, 1:20.43; third, 1:18.61; fourth, 1:18.57. Total time—5:21.03.

Mt. Von Hoevenberg Olympic course records: 4-man single heat—1:12.17; 4-man 4 heats—1:11.50; 2-man single heat—1:18.28; 2-man 4 heats—5:01.50.

BASKETBALL

BASKETBALL may be unique in sports. It is one game concerning which it is safe to state when, where and how it originated. In the winter of 1891-92, Dr. James Naismith, an instructor in the Y.M.C.A. Training College (now Springfield College) at Springfield, Mass., deliberately invented the game of basketball in order to provide indoor exercise and competition for the students between the closing of the football season and the opening of the baseball season. He affixed peach baskets overhead on the walls at opposite ends of the gymnasium and, with an association (soccer) football, organized teams to play his new game in which the purpose was to toss the ball into one basket and prevent, as far as possible, the opponents from tossing the ball into the other basket. Fundamentally, the game is the same today, though there have been some improvements in equipment and many changes in the rules.

Because Dr. Naismith had eighteen available players when he invented the game, the first rule was: "There shall be nine players on each side." Later the number of players became optional, depending upon the size of the available court, but the five-player standard was adopted when the game spread over the country. United States soldiers introduced the game in Europe in World War I and, being taken up by foreign nations, it soon became a world-wide sport. An odd point is that, though it is still chiefly an indoor game in the United States, in other countries it flourishes almost entirely outdoors.

National Collegiate A. A. Champions

1939—Oregon	1946—Oklahoma A & M
1940—Indiana	1947—Holy Cross
1941—Wisconsin	1948—Kentucky
1942—Stanford	1949—Kentucky
1943—Wyoming	1950—C.C.N.Y.
1944—Utah	1951—Kentucky
1945—Oklahoma A & M	1952—Kansas

National Invitation Champions

(Madison Square Garden Tourney)

1938—Temple	1945—DePaul
1939—Long Island U.	1946—Kentucky
1940—Colorado	1947—Utah
1941—Long Island U.	1948—St. Louis
1942—West Virginia	1949—San Francisco
1943—St. John's (Bklyn.)	1950—C.C.N.Y.
1944—St. John's (Bklyn.)	1951—Brigham Young
	1952—La Salle (Phila.)

FINAL 1951-52 CONFERENCE STANDINGS

Eastern League

W.	L.	W.	L.
Princeton.....	10 2	Dartmouth.....	4 8
Pennsylvania.....	9 3	Yale.....	4 8
Cornell.....	8 4	Harvard.....	0 12
Columbia.....	7 5		

Western

W.	L.	W.	L.
Illinois.....	12 2	Ohio State.....	6 8
Iowa.....	11 3	Wisconsin.....	5 9
Minnesota.....	10 4	Michigan.....	4 10
Indiana.....	9 5	Northwestern.....	4 10
Michigan State.....	6 8	Purdue.....	3 11

Missouri Valley

W.	L.	W.	L.
St. Louis.....	9 1	Detroit.....	4 6
Okl. A. & M.....	7 3	Houston.....	3 7
Tulsa.....	5 5	Wichita.....	2 8

Big Seven

W.	L.	W.	L.
Kansas.....	11 1	Colorado.....	4 8
Kansas State.....	10 2	Oklahoma.....	4 8
Missouri.....	6 6	Nebraska.....	3 9
Iowa State.....	4 8		

Southwest

W.	L.	W.	L.
Texas Christian....	11 1	So. Methodist.....	5 7
Texas.....	8 4	Arkansas.....	4 8
Texas A. & M.....	5 7	Rice.....	4 8
Baylor.....	5 7		

Pacific Coast

SOUTHERN DIVISION	W.	L.	NORTHERN DIVISION	W.	L.
*U.C.L.A.....	8	4	Washington.....	14	2
Stanford.....	6	6	Idaho.....	9	7
California.....	6	6	Oregon.....	8	8
So. California.....	4	8	Wash. State.....	6	10
			Oregon State.....	3	13

* Won conference title.

OTHER COLLEGE CHAMPIONS, 1952

Southeastern Conference—Kentucky
 Southern Conference—No. Carolina State
 Skyline Six Conference—Wyoming
 Border Conference—New Mexico A. & M.
 and West Texas State (tie)
 Central A. A.—Virginia Union (tournament); West Va. State (regular season)
 National Assn. (N.A.I.B.)—Southwest Missouri State
 National Catholic—Marquette
 Mason-Dixon Conference—Baltimore
 Rocky Mountain Conference—Montana State and Colorado State (tie)
 National Junior—Wharton (Texas)
 Canadian—Western Ontario

A. A. U. CHAMPIONS, 1952

Men—Caterpillar Diesels, Peoria, Ill.
 Women—Hanes Hosiery, Winston-Salem, N. C.

Professional Basketball

Source: Haskell Cohen, Publicity Director, National Basketball Association.

NATIONAL BASKETBALL ASSOCIATION

Final 1951-52 Standing of the Clubs

(Regular season)

EASTERN DIVISION

	Won	Lost	Pct.	Avg. pts. per game
Syracuse Nationals.....	40	26	.606	86.7
Boston Celtics.....	39	27	.591	91.3
New York Knickerbockers.....	37	29	.561	85.0
Philadelphia Warriors.....	33	33	.500	86.5
Baltimore Bullets.....	20	46	.303	81.5

WESTERN DIVISION

	Won	Lost	Pct.	Avg. pts. per game
Rochester Royals.....	41	25	.621	86.2
Minneapolis Lakers.....	40	26	.606	85.6
Indianapolis Olympians.....	34	32	.515	82.9
Fort Wayne Pistons.....	29	37	.439	78.0
Milwaukee Hawks.....	17	49	.258	73.2

Eastern Division Play-offs

Series A—Syracuse beat Philadelphia, 2 games to 1.
Series A—New York beat Boston, 2 games to 1.
Series B—New York beat Syracuse, 3 games to 1.

Western Division Play-offs

Series A—Minneapolis beat Indianapolis, 2 games to 0.
Series A—Rochester beat Fort Wayne, 2 games to 0.
Series B—Minneapolis beat Rochester, 3 games to 1.

Championship Final

*April 12—Minneapolis 83, New York 79.
*April 13—New York 80, Minneapolis 72.
April 16—Minneapolis 82, New York 77.
April 18—New York 90, Minneapolis 89 (overtime).
*April 20—Minneapolis 102, New York 89.
April 23—New York 76, Minneapolis 68.
†April 25—Minneapolis 82, New York 65.

* At St. Paul. † At Minneapolis.

FINAL STANDING OF THE CLUBS

	Won	Lost	Pct.
Minneapolis Lakers.....	4	3	.571
New York Knickerbockers.....	3	4	.429

Leading Scorers

(Regular season)

	Gms.	Gls.	Fts.	Pts.
Paul Arizin, Philadelphia.....	66	548	578	1674
George Mikan, Minneapolis.....	64	545	433	1523
Bob Cousy, Boston.....	66	512	409	1433
Ed Macauley, Boston.....	66	384	496	1264
Bob Davies, Rochester.....	65	379	294	1052
Frank Brian, Fort Wayne.....	66	342	367	1051
Larry Foust, Fort Wayne.....	66	390	267	1047
Bob Wanzer, Rochester.....	66	328	377	1033
Arnie Risen, Rochester.....	66	365	302	1032
Vern Mikkelsen, Minneapolis.....	66	363	283	1009
Jim Pollard, Minneapolis.....	65	411	183	1005
Fred Scolari, Baltimore.....	64	290	353	933
Max Zaslofsky, New York.....	66	322	287	931
Joe Fulks, Philadelphia.....	61	336	250	922
Joe Graboski, Indianapolis.....	66	320	264	904
Fred Schaus, Fort Wayne.....	62	281	310	872
Dolph Schayes, Syracuse.....	63	263	342	868
Red Rocha, Syracuse.....	66	300	254	854
Leo Barnhorst, Indianapolis.....	66	349	122	820
Andy Phillip, Philadelphia.....	66	279	232	790

TEAM-VS.-TEAM RECORDS

(Regular season)

	Rochester	Syracuse	Minneapolis	Boston	New York	Indianapolis	Philadelphia	Fort Wayne	Baltimore	Milwaukee	Points	
											For	Agts.
Rochester.....	—	4	2	3	4	5	4	6	4	8	5689	5469
Syracuse.....	2	—	5	5	4	2	6	6	4	5721	5427	
Minneapolis..	7	1	—	3	4	5	2	4	6	8	5648	5250
Boston.....	3	4	3	—	4	3	6	3	8	5	6027	5759
New York.....	2	5	2	5	—	3	6	3	7	4	5609	5560
Indianapolis..	3	4	4	3	3	—	2	4	4	7	5474	5466
Philadelphia..	2	3	4	3	3	4	—	4	5	5	5712	5795
Fort Wayne...	3	0	5	3	3	5	2	—	4	4	5151	5286
Baltimore.....	2	3	0	1	2	2	4	2	—	4	5378	5873
Milwaukee....	1	2	1	1	2	2	1	5	2	—	4833	5357

1951-52 ALL-STAR SELECTIONS

FIRST TEAM—George Mikan, Minneapolis; Paul Arizin, Philadelphia; Bob Cousy, Boston; Bob Davies, Rochester; *Adolph Schayes, Syracuse; *Ed Macauley, Boston.

SECOND TEAM—Vern Mikkelsen, Minneapolis; Jim Pollard, Minneapolis; Bobby Wanzer, Rochester; Larry Foust, Fort Wayne; Andy Phillip, Philadelphia.

* Tied for fifth place in voting.

O'Brien Sets Scoring Mark

Johnny O'Brien, Seattle University junior, set an intercollegiate basketball record by scoring 1,030 points during the 1951-52 season. O'Brien, first collegian to reach the 1,000 mark in a single season, sank 342 field goals and 346 free throws, the latter another national record.

Mrs. Palmer Annexes Shooting Crown

Mrs. Rose Palmer of Chicago gained the women's international live pigeon shooting championship for the third time in four years in 1952. The event was held in Lisbon, Portugal, in May.

AMERICAN BASKETBALL LEAGUE CHAMPIONS

1926—Cleveland Rosenblums
1927—Brooklyn Original Celtics
1928—Brooklyn Original Celtics
1929—Cleveland Rosenblums
1930—Cleveland Rosenblums
1931—Brooklyn Visitations
1932—No competition
1933—No competition
1934—Philadelphia Hebrews

1935—Brooklyn Visitations
1936—Philadelphia Hebrews
1937—Philadelphia Hebrews
1938—Jersey Reds
1939—New York Jewels
1940—Philadelphia Sphas
1941—Philadelphia Sphas
1942—Wilmington
1943—Philadelphia Sphas

1944—Wilmington Bombers
1945—Philadelphia Sphas
1946—Baltimore Bullets
1947—Trenton Tigers
1948—Wilkes-Barre Barons
1949—Wilkes-Barre Barons
1950—Scranton Miners
1951—Scranton Miners
1952—Wilkes-Barre Barons

LAWN TENNIS

LAWN TENNIS is a comparatively modern modification of the ancient game of court tennis. Major Walter Clopton Wingfield thought that something like court tennis might be played outdoors on lawns and in December, 1873, at Nantclwyd, Wales, he introduced his new game under the name of *Sphairistike* at a lawn party. The game was a success and spread rapidly, but the name was a total failure and almost immediately disappeared when all the players and spectators began to refer to the new game as "lawn tennis." In the early part of 1874 a young lady named Mary Ewing Outerbridge returned from Bermuda to New York, bringing with her the implements and necessary equipment of the new game that she had obtained from a British Army supply store in Bermuda. Miss Outerbridge and friends played the first game of lawn tennis in the United States on the grounds of the Staten Island

Cricket and Baseball Club in the spring of 1874.

For a few years the new game went along in haphazard fashion under varying rules. Tennis balls were of no standard size or texture. The nets were set at different heights up to 5 feet on the side and 4 feet in the middle. Some courts were marked out in hour-glass shape, narrow in the middle and wide at both ends. But about 1880 standard measurements for the court and standard equipment within definite limits became the rule. In 1881 the United States Lawn Tennis Association was formed and conducted the first national championship at Newport, R. I. The international matches for the Davis Cup began with a series between the British and United States players on the courts of the Longwood Cricket Club, Chestnut Hill, Mass., in 1900, with the home players winning.

Lawn Tennis Statistics

Source: The Official U.S.L.T.A. Yearbook and Tennis Guide.

DAVIS CUP CHALLENGE ROUND RESULTS

MEN

No matches in 1901, 1910, 1915-18, and 1940-45.

Year	Result	Where played
1900	United States 5, British Isles 0.....	Chestnut Hill
1902	United States 3, British Isles 2.....	Brooklyn
1903	British Isles 4, United States 1.....	Chestnut Hill
1904	British Isles 5, Belgium 0.....	Wimbledon
1905	British Isles 5, United States 0.....	Wimbledon
1906	British Isles 5, United States 0.....	Wimbledon
1907	Australasia 3, British Isles 2.....	Wimbledon
1908	Australasia 3, United States 2.....	Melbourne
1909	Australasia 5, United States 0.....	Sydney
1911	Australasia 5, United States 0.....	Christchurch
1912	British Isles 3, Australasia 2.....	Melbourne
1913	United States 3, British Isles 2.....	Wimbledon
1914	Australasia 3, United States 2.....	Forest Hills
1919	Australasia 4, British Isles 1.....	Sydney
1920	United States 5, Australasia 0.....	Auckland
1921	United States 5, Japan 0.....	Forest Hills
1922	United States 4, Australasia 1.....	Forest Hills
1923	United States 4, Australasia 1.....	Forest Hills
1924	United States 5, Australasia 0.....	Philadelphia
1925	United States 5, France 0.....	Philadelphia

Year	Result	Where played
1926	United States 4, France 1.....	Philadelphia
1927	France 3, United States 2.....	Philadelphia
1928	France 4, United States 1.....	Paris
1929	France 3, United States 2.....	Paris
1930	France 4, United States 1.....	Paris
1931	France 3, Great Britain 2.....	Paris
1932	France 3, United States 2.....	Paris
1933	Great Britain 3, France 2.....	Paris
1934	Great Britain 4, United States 1.....	Wimbledon
1935	Great Britain 5, United States 0.....	Wimbledon
1936	Great Britain 3, Australia 2.....	Wimbledon
1937	United States 4, Great Britain 1.....	Wimbledon
1938	United States 3, Australia 2.....	Philadelphia
1939	Australia 3, United States 2.....	Haverford
1946	United States 5, Australia 0.....	Melbourne
1947	United States 4, Australia 1.....	Forest Hills
1948	United States 5, Australia 0.....	Forest Hills
1949	United States 4, Australia 1.....	Forest Hills
1950	Australia 4, United States 1.....	Forest Hills
1951	Australia 3, United States 2.....	Sydney

WIGHTMAN CUP RECORD

WOMEN

Year	Result	Where played
1923	United States 7, England 0.....	Forest Hills
1924	England 6, United States 1.....	Wimbledon
1925	England 4, United States 3.....	Forest Hills
1926	United States 4, England 3.....	Wimbledon
1927	United States 5, England 2.....	Forest Hills
1928	England 4, United States 3.....	Wimbledon
1929	United States 4, England 3.....	Forest Hills
1930	England 4, United States 3.....	Wimbledon
1931	United States 5, England 2.....	Forest Hills
1932	United States 4, England 3.....	Wimbledon
1933	United States 4, England 3.....	Forest Hills
1934	United States 5, England 2.....	Wimbledon
1935	United States 4, England 3.....	Forest Hills

Year	Result	Where played
1936	United States 4, England 3.....	Wimbledon
1937	United States 6, England 1.....	Forest Hills
1938	United States 5, England 2.....	Wimbledon
1939	United States 5, England 2.....	Forest Hills
1940-45 No matches		
1946	United States 7, England 0.....	Wimbledon
1947	United States 7, England 0.....	Forest Hills
1948	United States 6, England 1.....	Wimbledon
1949	United States 7, England 0.....	Haverford
1950	United States 7, England 0.....	Wimbledon
1951	United States 6, England 1.....	Longwood
1952	United States 7, England 0.....	Wimbledon

UNITED STATES CHAMPIONS

Men's Singles

1881 Richard D. Sears	1899 Malcolm D. Whitman	1917 R. Lindley Murray†	1935 Wilmer L. Allison
1882 Richard D. Sears	1900 Malcolm D. Whitman	1918 R. Lindley Murray	1936 Fred J. Perry
1883 Richard D. Sears	1901 William A. Larned	1919 William Johnston	1937 J. Donald Budge
1884 Richard D. Sears	1902 William A. Larned	1920 William T. Tilden, II	1938 J. Donald Budge
1885 Richard D. Sears	1903 Hugh L. Doherty	1921 William T. Tilden, II	1939 Robert L. Riggs
1886 Richard D. Sears	1904 Holcombe Ward	1922 William T. Tilden, II	1940 Donald McNeill
1887 Richard D. Sears	1905 Beals C. Wright	1923 William T. Tilden, II	1941 Robert L. Riggs
1888 Henry W. Slocum, Jr.	1906 William J. Clothier	1924 William T. Tilden, II	1942 Frederick R. Schroeder, Jr.
1889 Henry W. Slocum, Jr.	1907 William A. Larned	1925 William T. Tilden, II	1943 Lt. (jg) Joseph R. Hunt
1890 Oliver S. Campbell	1908 William A. Larned	1926 Jean Rene Lacoste	1944 Sgt. Frank A. Parker
1891 Oliver S. Campbell	1909 William A. Larned	1927 Jean Rene Lacoste	1945 Sgt. Frank A. Parker
1892 Oliver S. Campbell	1910 William A. Larned	1928 Henri Cochet	1946 John A. Kramer
1893 Robert D. Wrenn	1911 William A. Larned	1929 William T. Tilden, II	1947 John A. Kramer
1894 Robert D. Wrenn	1912 Maurice E. McLoughlin*	1930 John H. Doeg	1948 Richard Gonzales
1895 Fred H. Hovey	1913 Maurice E. McLoughlin	1931 H. Ellsworth Vines, Jr.	1949 Richard Gonzales
1896 Robert D. Wrenn	1914 R. N. Williams, II	1932 H. Ellsworth Vines, Jr.	1950 Arthur Larsen
1897 Robert D. Wrenn	1915 William Johnston	1933 Fred J. Perry	1951 Frank Sedgman
1898 Malcolm D. Whitman	1916 R. N. Williams, II	1934 Fred J. Perry	1952 Frank Sedgman

* Challenge round abandoned. † Patriotic tourney.

Men's Doubles

1881 C. M. Clark—F. W. Taylor	1917 F. B. Alexander—H. A. Throckmorton*
1882 R. D. Sears—James Dwight	1918 W. T. Tilden, II—Vincent Richards†
1883 R. D. Sears—James Dwight	1919 N. E. Brookes—G. L. Patterson
1884 R. D. Sears—James Dwight	1920 William Johnston—C. J. Griffin
1885 R. D. Sears—J. S. Clark	1921 W. T. Tilden, II—Vincent Richards
1886 R. D. Sears—James Dwight	1922 W. T. Tilden, II—Vincent Richards
1887 R. D. Sears—James Dwight	1923 W. T. Tilden, II—B. I. C. Norton
1888 O. S. Campbell—V. G. Hall	1924 H. O. Kinsay—R. G. Kinsey
1889 H. W. Slocum, Jr.—H. A. Taylor	1925 Vincent Richards—R. N. Williams, II
1890 V. G. Hall—Clarence Hobart	1926 Vincent Richards—R. N. Williams, II
1891 O. S. Campbell—R. P. Huntington, Jr.	1927 W. T. Tilden, II—F. T. Hunter
1892 O. S. Campbell—R. P. Huntington, Jr.	1928 G. M. Lott, Jr.—J. F. Hennessey
1893 Clarence Hobart—F. H. Hovey	1929 G. M. Lott, Jr.—J. H. Doeg
1894 Clarence Hobart—F. H. Hovey	1930 G. M. Lott, Jr.—J. H. Doeg
1895 M. G. Chace—R. D. Wrenn	1931 W. L. Allison—John Van Ryn
1896 C. B. Neel—S. R. Neel	1932 H. E. Vines, Jr.—Keith Gledhill
1897 L. E. Ware—G. P. Sheldon, Jr.	1933 G. M. Lott, Jr.—L. R. Stofen
1898 L. E. Ware—G. P. Sheldon, Jr.	1934 G. M. Lott, Jr.—L. R. Stofen
1899 Holcombe Ward—D. F. Davis	1935 W. L. Allison—John Van Ryn
1900 Holcombe Ward—D. F. Davis	1936 J. D. Budge—C. G. Mako
1901 Holcombe Ward—D. F. Davis	1937 Baron G. von Cramm—Henner Henkel
1902 R. F. Doherty—H. L. Doherty	1938 J. D. Budge—C. G. Mako
1903 R. F. Doherty—H. L. Doherty	1939 A. K. Quist—J. E. Bromwich
1904 Holcombe Ward—B. C. Wright	1940 J. A. Kramer—F. R. Schroeder, Jr.
1905 Holcombe Ward—B. C. Wright	1941 J. A. Kramer—F. R. Schroeder, Jr.
1906 Holcombe Ward—B. C. Wright	1942 Lt. (jg) Gardner Mulloy—W. F. Talbert
1907 H. H. Hackett—F. B. Alexander	1943 J. A. Kramer—Cpl. F. A. Parker
1908 H. H. Hackett—F. B. Alexander	1944 Lt. Don McNeill—a/c Robert Falkenburg
1909 H. H. Hackett—F. B. Alexander	1945 Lt. (sg) Gardner Mulloy—W. F. Talbert
1910 H. H. Hackett—F. B. Alexander	1946 Gardner Mulloy—W. F. Talbert
1911 R. D. Little—G. F. Touchard	1947 J. A. Kramer—F. R. Schroeder, Jr.
1912 M. E. McLoughlin—T. C. Bundy	1948 Gardner Mulloy—W. F. Talbert
1913 M. E. McLoughlin—T. C. Bundy	1949 John Bromwich—William Sidwell
1914 M. E. McLoughlin—T. C. Bundy	1950 John Bromwich—Frank Sedgman
1915 William Johnston—C. J. Griffin	1951 Frank Sedgman—Kenneth McGregor
1916 William Johnston—C. J. Griffin	1952 E. Victor Seixas, Jr.—Mervyn Rose

* Patriotic tournament. † Challenge round abandoned.

U. S. Indoor Champions, 1952

Singles—Richard Savitt, Orange, N. J.
 Women's singles—Mrs. Nancy Chaffee Kiner, Palm Springs, Calif.
 Doubles—William Talbert, New York—Patty Budge, Los Angeles
 Women's doubles—Mrs. Patricia C. Todd, La Jolla, Calif.—Mrs. Kiner

Public Parks

Singles—Linn Rockwood, Salt Lake City
 Women's singles—Mrs. Mary A. Prentiss, Blue Jay, Calif.
 Doubles—Roy and Nolan McQuown, Los Angeles

French Champions, 1952

Singles—Jaroslav Drobný, Egypt
 Women's singles—Doris Hart, Coral Gables, Fla.
 Doubles—Frank Sedgman—Kenneth McGregor, Australia
 Women's doubles—Shirley Fry, Akron, Ohio—Doris Hart
 Mixed doubles—Eric Sturgess, South Africa—Doris Hart

Eastern Intercollegiate

Men—Gilmore Rothrock, Cornell
 Women—Edith Sullivan, Framingham Teachers
 Freshman—John Hironimus, Indiana
 Men's team—Cornell (23 points)

Women's Singles

1887 Ellen F. Hansell	1904 May G. Sutton	1921 Mrs. Franklin I. Mallory	1937 Anita Lizana
1888 Bertha L. Townsend	1905 Elisabeth H. Moore	1922 Mrs. Franklin I. Mallory	1938 Alice Marble
1889 Bertha L. Townsend	1906 Helen Homans	1923 Helen N. Wills	1939 Alice Marble
1890 Ellen C. Roosevelt	1907 Evelyn Sears	1924 Helen N. Wills	1940 Alice Marble
1891 Mabel E. Cahill	1908 Mrs. Maud Bargar-Wallach	1925 Helen N. Wills	1941 Mrs. Sarah P. Cooke
1892 Mabel E. Cahill	1909 Hazel V. Hotchkiss	1926 Mrs. Franklin I. Mallory	1942 Pauline M. Betz
1893 Aline M. Terry	1910 Hazel V. Hotchkiss	1927 Helen N. Wills	1943 Pauline M. Betz
1894 Helen R. Helwig	1911 Hazel V. Hotchkiss	1928 Helen N. Wills	1944 Pauline M. Betz
1895 Juliette P. Atkinson	1912 Mary K. Browne	1929 Helen N. Wills	1945 Mrs. Sarah P. Cooke
1896 Elisabeth H. Moore	1913 Mary K. Browne	1930 Betty Nuthall	1946 Pauline M. Betz
1897 Juliette P. Atkinson	1914 Mary K. Browne	1931 Mrs. Helen W. Moody	1947 A. Louise Brough
1898 Juliette P. Atkinson	1915 Molla Bjurstedt	1932 Helen Jacobs	1948 Mrs. M. O. du Pont
1899 Marion Jones	1916 Molla Bjurstedt	1933 Helen Jacobs	1949 Mrs. M. O. du Pont
1900 Myrtle McAteer	1917 Molla Bjurstedt*	1934 Helen Jacobs	1950 Mrs. M. O. du Pont
1901 Elisabeth H. Moore	1918 Molla Bjurstedt†	1935 Helen Jacobs	1951 Maureen Connolly
1902 Marion Jones	1919 Mrs. George W. Wightman	1936 Alice Marble	1952 Maureen Connolly
1903 Elisabeth H. Moore	1920 Mrs. Franklin I. Mallory		

* Louise Hammond won patriotic tourney. † Challenge round abandoned.

Women's Doubles

1890 Ellen C. Roosevelt—Grace W. Roosevelt	1922 Mrs. J. B. Jessup—Helen N. Wills
1891 Mabel E. Cahill—Mrs. W. F. Morgan	1923 Kathleen McKane—Mrs. B. C. Covell
1892 Mabel E. Cahill—A. M. McKinley	1924 Mrs. G. W. Wightman—Helen N. Wills
1893 Aline M. Terry—Hattie Butler	1925 Mary K. Browne—Helen N. Wills
1894 Helen R. Helwig—J. P. Atkinson	1926 Elizabeth Ryan—Eleanor Goss
1895 Helen R. Helwig—J. P. Atkinson	1927 Mrs. L. A. Godfree—Ermyntude Harvey
1896 E. H. Moore—J. P. Atkinson	1928 Mrs. G. W. Wightman—Helen N. Wills
1897 J. P. Atkinson—Kathleen Atkinson	1929 Mrs. Phoebe Watson—Mrs. L. R. C. Michell
1898 J. P. Atkinson—Kathleen Atkinson	1930 Betty Nuthall—Sarah Palfrey
1899 Jane W. Craven—Myrtle McAteer	1931 Betty Nuthall—Mrs. E. B. Whittingstall
1900 Edith Parker—Hallie Champlin	1932 Helen Jacobs—Sarah Palfrey
1901 J. P. Atkinson—Myrtle McAteer	1933 Betty Nuthall—Freda James
1902 J. P. Atkinson—Marion Jones	1934 Helen Jacobs—Sarah Palfrey
1903 E. H. Moore—Carrie B. Neely	1935 Helen Jacobs—Mrs. S. P. Fabyan
1904 May G. Sutton—Miriam Hall	1936 Mrs. M. G. Van Ryn—Carolyn Babcock
1905 Helen Homans—Carrie B. Neely	1937 Mrs. S. P. Fabyan—Alice Marble
1906 Mrs. L. S. Coe—Mrs. D. S. Platt	1938 Mrs. S. P. Fabyan—Alice Marble
1907 Marie Weimer—Carrie B. Neely	1939 Mrs. S. P. Fabyan—Alice Marble
1908 Evelyn Sears—Margaret Curtis	1940 Mrs. S. P. Fabyan—Alice Marble
1909 Hazel V. Hotchkiss—Edith E. Rotch	1941 Mrs. S. P. Cooke—Margaret Osborne
1910 Hazel V. Hotchkiss—Edith E. Rotch	1942 A. Louise Brough—Margaret Osborne
1911 Hazel V. Hotchkiss—Eleanora Sears	1943 A. Louise Brough—Margaret Osborne
1912 Dorothy Green—Mary K. Browne	1944 A. Louise Brough—Margaret Osborne
1913 Mary K. Browne—Mrs. R. H. Williams	1945 A. Louise Brough—Margaret Osborne
1914 Mary K. Browne—Mrs. R. H. Williams	1946 A. Louise Brough—Margaret Osborne
1915 Mrs. G. W. Wightman—Eleanora Sears	1947 A. Louise Brough—Margaret Osborne
1916 Molla Bjurstedt—Eleanora Sears	1948 A. Louise Brough—Mrs. Margaret O. du Pont
1917 Molla Bjurstedt—Eleanora Sears	1949 A. Louise Brough—Mrs. Margaret O. du Pont
1918 Marion Zinderstein—Eleanor Goss	1950 A. Louise Brough—Mrs. Margaret O. du Pont
1919 Marion Zinderstein—Eleanor Goss	1951 Doris Hart—Shirley Fry
1920 Marion Zinderstein—Eleanor Goss	1952 Doris Hart—Shirley Fry
1921 Mary K. Browne—Mrs. R. H. Williams	

OTHER UNITED STATES TENNIS CHAMPIONS, 1952

Singles

Veterans'—Harry Hopman, Australia
 Women veterans'—Mrs. Richard A. Buck, Manchester, Mass.
 Juniors'—Jack Frost, Monterey, Calif.
 Interscholastic—Eddie Rubineff, Miami Beach, Fla.
 Boys'—Mike Green, Miami Beach, Fla.
 Girls'—Julia Sampson, San Marino, Calif.

Doubles

Mixed—Frank Sedgman, Australia—Doris Hart, Coral Gables, Fla.
 Veterans'—Pierre Harang, Roslyn, N. Y.—Harry Hopman
 Women veterans'—Mrs. Hazel Hotchkiss Wightman, Brookline, Mass.—Mrs. R. A. Buck
 Juniors'—Francisco Contreras, Mexico City—Sammy Giammalva, Houston, Texas
 Boys'—Robert Bowden, La Jolla, Calif.—John Cranston, San Marino, Calif.
 Interscholastic—Jerry Moss—Eddie Rubineff, Miami Beach, Fla.

Girls'—Mary Ann Eilenberger—Linda Mitchell, San Diego, Calif.
 Father-and-son—Karl Kamrath, Sr. and Jr., Houston

Clay Courts

Singles—Art Larsen, San Leandro, Calif.
 Women's singles—Anita Kanter, Modesto, Calif.
 Doubles—Grant Golden, Wilmette, Ill.—Art Larsen
 Women's Doubles—Mrs. Lucille Davidson, Lee's Summit, Mo.—Doris Popple, Des Moines, Iowa

Hard Courts

Singles—Art Larsen, San Leandro, Calif.
 Women's singles—Mrs. Mary A. Prentiss, Blue Jay, Calif.
 Doubles—Tom Brown, San Francisco—Art Larsen
 Women's doubles—Julia Sampson—Mrs. Prentiss
 Mixed doubles—Hugh Stewart, Los Angeles—Julia Sampson

BRITISH LAWN TENNIS CHAMPIONS

Men's Singles

1877 S. W. Gore	1894 J. Pin	1911 A. F. Wilding	1931 S. B. Wood
1878 P. F. Hadow	1895 W. Baddeley	1912 A. F. Wilding	1932 H. E. Vines, Jr.
1879 J. T. Hartley	1896 H. S. Mahony	1913 A. F. Wilding	1933 J. H. Crawford
1880 J. T. Hartley	1897 R. F. Doherty	1914 N. E. Brookes	1934 F. J. Perry
1881 W. Renshaw	1898 R. F. Doherty	1919 G. L. Patterson	1935 F. J. Perry
1882 W. Renshaw	1899 R. F. Doherty	1920 W. T. Tilden, II	1936 F. J. Perry
1883 W. Renshaw	1900 R. F. Doherty	1921 W. T. Tilden, II	1937 J. D. Budge
1884 W. Renshaw	1901 A. W. Gore	1922 G. L. Patterson*	1938 J. D. Budge
1885 W. Renshaw	1902 H. L. Doherty	1923 W. M. Johnston	1939 R. L. Riggs
1886 W. Renshaw	1903 H. L. Doherty	1924 J. Borotra	1946 Yvon Petra
1887 H. F. Lawford	1904 H. L. Doherty	1925 R. Lacoste	1947 John A. Kramer
1888 E. Renshaw	1905 H. L. Doherty	1926 J. Borotra	1948 R. Falkenburg
1889 W. Renshaw	1906 H. L. Doherty	1927 H. Cochet	1949 F. R. Schroeder, Jr.
1890 W. J. Hamilton	1907 N. E. Brookes	1928 R. Lacoste	1950 Budge Patty
1891 W. Baddeley	1908 A. W. Gore	1929 H. Cochet	1951 Richard Savitt
1892 W. Baddeley	1909 A. W. Gore	1930 W. T. Tilden, II	1952 Frank Sedgman
1893 J. Pin	1910 A. F. Wilding		

* Challenge round abandoned.

Men's Doubles

1879 L. R. Erskine—H. F. Lawford	1900 R. F. Doherty—H. L. Doherty	1925 J. Borotra—R. Lacoste
1880 W. Renshaw—E. Renshaw	1901 R. F. Doherty—H. L. Doherty	1926 H. Cochet—J. Brugnon
1881 W. Renshaw—E. Renshaw	1902 S. H. Smith—F. L. Riseley	1927 W. T. Tilden, II—F. T. Hunter
1882 J. T. Hartley—R. T. Richardson	1903 R. F. Doherty—H. L. Doherty	1928 H. Cochet—J. Brugnon
1883 C. W. Grinstead—C. E. Welldon	1904 R. F. Doherty—H. L. Doherty	1929 W. Allison—J. Van Ryn
1884 W. Renshaw—E. Renshaw	1905 R. F. Doherty—H. L. Doherty	1930 W. Allison—J. Van Ryn
1885 W. Renshaw—E. Renshaw	1906 S. H. Smith—F. L. Riseley	1931 G. M. Lott—J. Van Ryn
1886 W. Renshaw—E. Renshaw	1907 N. E. Brookes—A. F. Wilding	1932 J. Borotra—J. Brugnon
1887 P. Bowes-Lyon—H. W. W. Wilberforce	1908 A. F. Wilding—M. J. G. Ritchie	1933 J. Borotra—J. Brugnon
	1909 A. W. Gore—H. R. Barrett	1934 G. M. Lott—L. R. Stoefen
1888 W. Renshaw—E. Renshaw	1910 A. F. Wilding—M. J. G. Ritchie	1935 J. H. Crawford—A. K. Quist
1889 W. Renshaw—E. Renshaw	1911 M. Decugis—A. H. Gobert	1936 C. R. D. Tuckey—G. P. Hughes
1890 J. L. Pim—F. O. Stoker	1912 H. R. Barrett—C. P. Dixon	1937 J. D. Budge—C. Gene Mako
1891 W. Baddeley—H. Baddeley	1913 H. R. Barrett—C. P. Dixon	1938 J. D. Budge—C. Gene Mako
1892 H. S. Barlow—E. W. Lewis	1914 N. E. Brookes—A. F. Wilding	1939 R. L. Riggs—E. T. Cooke
1893 J. L. Pim—F. O. Stoker	1919 R. V. Thomas—P. O'Hara Wood	1946 J. A. Kramer—Tom Brown
1894 W. Baddeley—H. Baddeley	1920 R. N. Williams, II—C. S. Garland	1947 J. A. Kramer—R. Falkenburg
1895 W. Baddeley—H. Baddeley	1921 R. Lycett—M. Woosnam	1948 J. Bromwich—F. Sedgman
1896 W. Baddeley—H. Baddeley	1922 R. Lycett—J. O. Anderson*	1949 F. Parker—R. Gonzales
1897 R. F. Doherty—H. L. Doherty	1923 R. Lycett—L. A. Godfree	1950 J. Bromwich—A. Quist
1898 R. F. Doherty—H. L. Doherty	1924 V. Richards—F. T. Hunter	1951 F. Sedgman—K. McGregor
1899 R. F. Doherty—H. L. Doherty		1952 F. Sedgman—K. McGregor

* Challenge round abandoned.

Women's Singles

1884 M. Watson	1899 Mrs. Hillyard	1914 Mrs. L. Chambers	1932 Mrs. F. S. Moody
1885 M. Watson	1900 Mrs. Hillyard	1915-18 No tournaments	1933 Mrs. F. S. Moody
1886 Miss Bingley	1901 Mrs. Sterry	1919 Mlle. Lenglen	1934 D. E. Round
1887 L. Dod	1902 M. E. Robb	1920 Mlle. Lenglen	1935 Mrs. F. S. Moody
1888 L. Dod	1903 Miss Douglas	1921 Mlle. Lenglen	1936 H. H. Jacobs
1889 Mrs. Hillyard	1904 Miss Douglas	1922 Mlle. Lenglen	1937 D. E. Round
1890 L. Rice	1905 M. Sutton	1923 Mlle. Lenglen	1938 Mrs. F. S. Moody
1891 L. Dod	1906 Miss Douglas	1924 K. McKane	1939 A. Marble
1892 L. Dod	1907 M. Sutton	1925 Mlle. Lenglen	1946 Pauline M. Betz
1893 L. Dod	1908 Mrs. Sterry	1926 Mrs. Godfree	1947 Margaret Osborne
1894 Mrs. Hillyard	1909 D. Boothby	1927 H. Wills	1948 A. Louise Brough
1895 C. Cooper	1910 Mrs. L. Chambers	1928 H. Wills	1949 A. Louise Brough
1896 C. Cooper	1911 Mrs. L. Chambers	1929 H. Wills	1950 A. Louise Brough
1897 Mrs. Hillyard	1912 Mrs. Larcombe	1930 Mrs. F. S. Moody	1951 Doris Hart
1898 C. Cooper	1913 Mrs. L. Chambers	1931 Frl. C. Aussen	1952 Maureen Connolly

Women's Doubles

1913 Mrs. McNair—Miss Boothby	1928 Mrs. H. Watson—P. Saunders	1937 Mme. S. Mathieu—A. M. Yorke
1914 Miss Ryan—A. M. Morton	1929 Mrs. H. Watson—Mrs. Michell	1938 A. Marble—Mrs. S. P. Fabyan
1919 Mlle. Lenglen—Miss Ryan	1930 Miss Ryan—Mrs. F. S. Moody	1939 A. Marble—Mrs. S. P. Fabyan
1920 Mlle. Lenglen—Miss Ryan	1931 Mrs. Shepherd-Barron—Mrs. Mudford King	1946 A. L. Brough—M. Osborne
1921 Mlle. Lenglen—Miss Ryan		1947 Doris Hart—Mrs. Pat Todd
1922 Mlle. Lenglen—Miss Ryan	1932 Mlle. D. Metaxa—Mlle. J. Sigart	1948 A. L. Brough—Mrs. M. O. du Pont
1923 Mlle. Lenglen—Miss Ryan	1933 Miss Ryan—Mme. Mathieu	1949 A. L. Brough—Mrs. M. O. du Pont
1924 Mrs. Wightman—H. Wills	1934 Miss Ryan—Mme. Mathieu	1950 A. L. Brough—Mrs. M. O. du Pont
1925 Mlle. Lenglen—Miss Ryan	1935 K. E. Stammers—F. James	1951 Doris Hart—Shirley Fry
1926 Miss Ryan—M. K. Browne	1936 K. E. Stammers—F. James	1952 Doris Hart—Shirley Fry
1927 Miss Ryan—H. Wills		

COURT TENNIS

Source: Allison Danzig, *The New York Times*.

National Champions

1892	Richard D. Sears, Boston A. A.	1928-29	Hewitt Morgan, R. and T. Club
1893	Fiske Warren, Boston A. A.	1930	Lord Aberdare, England
1894-95	B. Spalding de Garmendia, R. and T. Club	1931-32	William C. Wright, Philadelphia
1896	Lawrence M. Stockton, Boston A. A.	1933	James H. Van Alen, R. and T. Club
1897	George R. Fearing, Jr., Boston A. A.	1934-37	Ogden Phipps, R. and T. Club
1898-99	Lawrence M. Stockton, Boston A. A.	1938	James H. Van Alen, R. and T. Club
1900	Eustace H. Miles, England	1939	Ogden Phipps, R. and T. Club
1901-04	Joshua Crane, Boston A. A.	1940	James H. Van Alen, R. and T. Club
1905	Charles E. Sands, R. and T. Club	1941	Alastair B. Martin, R. and T. Club
1906-17	Jay Gould, Philadelphia R. C.	1942-45	No tournaments
1918-19	No tournaments	1946	Robert Grant, III, R. and T. Club
1920-25	Jay Gould, Philadelphia R. C.	1947	E. M. Beals, Jr., Boston
1926	C. Suydam Cutting, R. and T. Club	1948-49	Ogden Phipps, Roslyn, N. Y.
1927	George Huband, England, and Chicago R. C.	1950-52	Alastair B. Martin, R. and T. Club

RACQUETS

Source: Allison Danzig, *The New York Times*.

National Champions

1890	B. Spalding de Garmendia, N. Y. Racquet Court	1916	S. G. Mortimer, R. and T. Club and Tuxedo
1891	B. Spalding de Garmendia, R. and T. Club	1917	C. C. Pell, R. and T. Club and Tuxedo
1892	J. S. Tooker, R. and T. Club, Boston A. A.	1918-19	No tournaments
1893-94	B. Spalding de Garmendia, R. and T. Club	1920-22	C. C. Pell, R. and T. Club and Tuxedo
1895	J. S. Tooker, R. and T. Club, Boston A. A.	1923	S. G. Mortimer, R. and T. Club and Tuxedo
1896-97	B. Spalding de Garmendia, R. and T. Club	1924-25	C. C. Pell, R. and T. Club and Tuxedo
1898	F. F. Rolland, Canada	1926	S. G. Mortimer, R. and T. Club and Tuxedo
1899	Quincy A. Shaw, Jr., Boston A. A.	1927-28	C. C. Pell, R. and T. Club and Tuxedo
1900	Eustace H. Miles, England	1929	H. D. Sheldon, R. and T. Club
1901	Quincy A. Shaw, Jr., Boston A. A.	1930	S. G. Mortimer, R. and T. Club and Tuxedo
1902	Clarence H. Mackay, R. and T. Club	1931-33	C. C. Pell, R. and T. Club and Tuxedo
1903	Payne Whitney, R. and T. Club	1934	E. M. Edwards, Philadelphia R. C.
1904	George H. Brooke, Philadelphia R. C.	1935	H. D. Sheldon, R. and T. Club
1905	Lawrence Waterbury, R. and T. Club	1936	E. M. Edwards, Philadelphia R. C.
1906	Percy D. Haughton, R. and T. Club	1937-39	Robert Grant, III, R. and T. Club
1907	Reginald Fincke, R. and T. Club	1940	Warren Ingersoll, III, Philadelphia R. C.
1908	Quincy A. Shaw, Jr., Boston T. and R. Club	1941	Robert Grant, III, R. and T. Club
1909	H. F. McCormick, University Club, Chicago	1942-45	No tournaments
1910	Quincy A. Shaw, Jr., Boston T. and R. Club	1946	Robert Grant, III, R. and T. Club
1911-12	Reginald Fincke, R. and T. Club	1947	J. Richards Leonard, R. and T. Club
1913-14	Lawrence Waterbury, R. and T. Club	1948-51	Robert Grant, III, R. and T. Club
1915	C. C. Pell, R. and T. Club and Tuxedo	1952	S. W. Pearson, Jr., Philadelphia R. C.

Tuxedo (N. Y.) Gold Racquet Winners

1904	M. S. Barger, R. and T. Club	1931	S. G. Mortimer, R. and T. Club and Tuxedo
1905-07	C. H. Mackay, R. and T. Club	1932-33	C. C. Pell, R. and T. Club and Tuxedo
1908	J. G. Douglas, R. and T. Club	1934	J. R. Leonard, R. and T. Club
1909	H. F. McCormick, Chicago Univ. Club	1935	H. B. Sheldon, R. and T. Club
1910	G. C. Clark, R. and T. Club	1936	C. C. Pell, R. and T. Club and Tuxedo
1911-12	J. G. Douglas, R. and T. Club	1937-39	R. Grant, III, R. and T. Club
1913	H. F. McCormick, Chicago Univ. Club	1940	J. R. Leonard, R. and T. Club
1914-17	C. C. Pell, R. and T. Club and Tuxedo	1941	R. Grant, III, R. and T. Club
1918-20	No tournaments	1942-45	No tournaments
1921-23	C. C. Pell, R. and T. Club and Tuxedo	1946-47	R. Grant, III, R. and T. Club
1924	S. G. Mortimer, R. and T. Club and Tuxedo	1948	J. R. Leonard, R. and T. Club
1925-27	C. C. Pell, R. and T. Club and Tuxedo	1949-50	R. Grant, III, R. and T. Club
1928	S. G. Mortimer, R. and T. Club and Tuxedo	1951	R. A. A. Holt, London, England
1929-30	C. C. Pell, R. and T. Club and Tuxedo	1952	S. W. Pearson, Jr., Philadelphia R. C.

OTHER CHAMPIONS, 1952

Court Tennis

National doubles—Ogden Phipps—Frank Shields, New York
 National professional-amateur doubles—Pierre Etchebaster, New York (professional)—Esmond Martin, Brookville, N. Y.

Tuxedo Gold Racquet—Alastair B. Martin, Glen Head, N. Y.

Racquets

Pell Cup—Kenneth Chantler, Montreal
 National doubles—Kenneth Wagg, England—John Rolland, Montreal
 Canadian singles—Robert Grant, III
 Canadian doubles—Robert Grant, III—John Rolland

SQUASH RACQUETS

Source: United States Squash Racquets Association.

National Singles Champions

1907-08.....	John A. Miskey, Overbrook G. C.	1930.....	Herbert N. Rawlins, Jr., R. and T. Club, N. Y.
1909.....	W. L. Freeland, Germantown C. C.	1931.....	J. Lawrence Pool, Harvard Club, New York
1910.....	John A. Miskey, Overbrook G. C.	1932.....	Beekman Pool, Harvard University
1911.....	F. S. White, Germantown C. C.	1933.....	Beekman Pool, Harvard Club, New York
1912.....	Constantine Hutchins, Boston A. A.	1934.....	Neil J. Sullivan, Germantown C. C.
1913.....	Mortimer L. Newhall, Germantown C. C.	1935.....	Donald Strachan, Philadelphia C. C.
1914.....	Constantine Hutchins, Boston T. and R. Club	1936.....	Germain G. Glidden, Harvard University
1915-17.....	Stanley W. Pearson, Germantown C. C.	1937-38.....	Germain G. Glidden, Harvard Club, New York
1918-19.....	No tournaments	1939.....	Donald Strachan, Merion C. C.
1920.....	Charles C. Peabody, Union B. C., Boston	1940.....	A. Willing Patterson, Philadelphia R. C.
1921-23.....	Stanley W. Pearson, Philadelphia R. C.	1941-42.....	Charles W. Brinton, Princeton University
1924.....	Gerald Roberts, Bath Club, London	1943-45.....	No tournaments
1925.....	W. Palmer Dixon, Harvard University	1946-47.....	Charles W. Brinton, Philadelphia
1926.....	W. Palmer Dixon, R. and T. Club, N. Y.	1948.....	Stanley W. Pearson, Jr., Philadelphia
1927.....	Myles P. Baker, Boston A. A.	1949.....	Hunter H. Lott, Jr., Merion C. C.
1928.....	Herbert N. Rawlins, Jr., R. and T. Club, N. Y.	1950-51.....	Edward Hahn, Detroit
1929.....	J. Lawrence Pool, Harvard Club, New York	1952.....	Harry Conlon, Buffalo, N. Y.

Lapham International Trophy Record

Year	Result	Where played	Year	Result	Where played
1922	U. S. 11, Canada 2.....	Boston	1937	Canada 8, U. S. 7.....	Montreal
1923	U. S. 9, Canada 3.....	Toronto	1938	U. S. 13, Canada 2.....	Boston
1924	U. S. 7½, England 6, Canada 1½.....	Philadelphia	1939	Canada 11, U. S. 4.....	Toronto
1925	U. S. 10, Canada 5.....	Montreal	1940	Canada 10, U. S. 5.....	Hartford
1926	U. S. 13, Canada 2.....	New York	1941	U. S. 8, Canada 7.....	Toronto
1927	England 17½, U. S. 16½, Canada 11.....	Toronto	1942	U. S. 13, Canada 2.....	Rochester, N. Y.
1928	U. S. 14, Canada 1.....	Buffalo	1943	Canada 7, U. S. 5.....	Montreal
1929	Canada 8, U. S. 4.....	Hamilton	1944	U. S. 12, Canada 3.....	New York
1930	U. S. 8, Canada 1.....	Baltimore	1945	Canada 12, U. S. 3.....	Toronto
1931	Canada 6, U. S. 5.....	Quebec	1946	U. S. 13, Canada 2.....	Boston
1932	U. S. 8, Canada 0.....	Hartford	1947	Canada 9, U. S. 6.....	Hamilton
1933	Canada 11, U. S. 4.....	Toronto	1948	U. S. 15, Canada 5.....	Hartford
1934	U. S. 10, Canada 1.....	Cedarhurst, N. Y.	1949	Canada 7, U. S. 3.....	Quebec
1935	U. S. 11, Canada 4.....	Montreal	1950	U. S. 7, Canada 6.....	Providence
1936	U. S. 10, Canada 2.....	Detroit	1951	U. S. 8, Canada 7.....	Toronto
			1952	Canada 9, U. S. 6.....	Rochester, N. Y.

OTHER SQUASH RACQUETS CHAMPIONS, 1952

Cowles Invitation—G. Diehl Mateer, Jr., Devon, Pa.
 Western singles—Ed Hahn, Detroit
 Canadian singles—Henri Salaun, Boston
 New York State singles—Calvin D. MacCracken, Princeton Club (N. Y.)
 Wolfe—Noel Cup (women)—United States

National

Doubles—Germain G. Glidden-Richard Remsen, New York

Intercollegiate—Charles W. Ufford, Jr., Harvard
 Professional—Eddie Reid, Hartford, Conn.
 Veterans—Harold Kaese, Boston
 Men's team—Philadelphia
 Women's singles—Margaret Howe, Boston
 Women's doubles—Mrs. Charles Wetzel-Anne Reilly, Philadelphia
 Women veterans—Mrs. Ellwood I. Beatty, Jr., Philadelphia

SQUASH TENNIS

National Champions

Year	Winner and Club	Year	Winner and Club
1911-12.....	Alfred Stillman, Harvard	1927-29.....	Rowland B. Haines, Columbia
1913.....	George Whitney, Harvard	1930-37.....	Harry F. Wolf, New York A. C.
1914.....	Alfred Stillman, Harvard	1938.....	Harry F. Wolf, Montclair
1915-17.....	Eric S. Winston, Harvard	1939-40.....	Harry F. Wolf, New York A. C.
1918.....	Fillmore Van S. Hyde, Harvard	1941.....	Joseph J. Lordi, New York A. C.
1919.....	John W. Appel, Jr., Harvard	1942-45.....	No tournaments
1920.....	Auguste J. Cordier, Yale	1946.....	Frank R. Hanson, Columbia
1921.....	Fillmore Van S. Hyde, Harvard	1947.....	Frederick B. Ryan, Jr., Yale
1922.....	Thomas R. Coward, Yale	1948-49.....	H. Robert Reeve, Bayside T. C.
1923.....	R. Earl Fink, Crescent	1950.....	H. Robert Reeve, Nassau C. C.
1924.....	Fillmore Van S. Hyde, Harvard	1951.....	J. T. P. Sullivan, Yale
1925.....	William Rand, Jr., Harvard	1952.....	H. Robert Reeve, New York A. C.
1926.....	Fillmore Van S. Hyde, Harvard		

TABLE TENNIS

World Champions

Year	Men's singles	Men's doubles	Year	Women's singles
1927-28	R. Jacobi, Hungary	Jacobi-Pecsi, Hungary	1927-31	M. Mednyansky, Hungary
1928-29	M. Mechlovits, Hungary	Liebstet-Thum, Austria	1932	A. Sipos, Hungary
1929-30	Fred Perry, England	Barna-Szabados, Hungary	1933	A. Sipos, Hungary
1930-31	Viktor Barna, Hungary	Barna-Szabados, Hungary	1934	Marie Kettnerova, Czechoslovakia
1931-32	Miklos Szabados, Hungary	Barna-Szabados, Hungary	1935	Marie Kettnerova, Czechoslovakia
1932-33	Viktor Barna, Hungary	Barna-Szabados, Hungary	1936	Ruth Hughes Aarons, United States
1933-34	Viktor Barna, Hungary	Barna-Glancz, Hungary	1937	No tournament
1934-35	Viktor Barna, Hungary	Barna-Szabados, Hungary	1938	Trudi Pritzi, Austria
1935-36	Viktor Barna, Hungary	Barna-Szabados, Hungary	1939	Vlasha Depetrisova, Czechoslovakia
1936-37	Standa Kolar, Czechoslovakia	Blattner-McClure, United States	1947	Giselle Farkas, Hungary
1937-38	Richard Bergmann, Austria	Blattner-McClure, United States	1948	Giselle Farkas, Hungary
1938-39	Bohumil Vana, Czech.	McClure-Schiff, U. S.	1949	Giselle Farkas, Hungary
1939-40	Richard Bergmann, Austria	Bergmann, Austria-Barna, Hungary	1950	Angelica Roseanu, Rumania
1947-48*	Verhulst Vana, Czechoslovakia	Vana-Slar, Czechoslovakia	1951	Angelica Roseanu, Rumania
1948-49	Richard Bergmann, England	Vana-Steipek, Czechoslovakia	1952	Angelica Roseanu, Rumania
1949-50	John Leach, England	Tokar-Andreadis, Czech.		
1950-51	Bergmann, England	Sido-Soos, Hungary		
1951-52	John Leach, England	Vana-Andreadis, Czech.		
1952-53	Hiroji Satoh, Japan	Fujiji-Hayashi, Japan		

Other World Champions, 1952

Women's doubles—	Tonnie Nishimura-Shizuka Narahara, Japan
Mixed doubles—	J. Ferensido, Hungary-Angelica Roseanu, Rumania
Men's team (Swaythling Cup)—	Hungary
Women's team (Corbillon Cup)—	Japan

United States Champions

MEN'S SINGLES

1931	Marcus Schussheim, New York
1932	Coleman Clark, Chicago*
	Marcus Schussheim, New York*
1933	James M. Jacobson, New Rochelle, N. Y.*
	Sidney Heitner, New York*
1934	James McClure, Indianapolis*
	Sol Schiff, New York*
1935	A. Berenbaum, New York
1936	Viktor Barna, Hungary†
	Sol Schiff, New York†
1937	Laszlo Bellak, Hungary†
1938	Laszlo Bellak, Hungary
1939	James McClure, Indianapolis
1940	Louis Pagliaro, New York
1941	Louis Pagliaro, New York
1942	Louis Pagliaro, New York
1943	William Holzrichter, Chicago
1944	John Somael, New York
1945	Richard Miles, New York
1946	Richard Miles, New York
1947	Richard Miles, New York
1948	Richard Miles, New York
1949	Richard Miles, New York
1950	John Leach, England
1951	Richard Miles, New York
1952	Louis Pagliaro, New York

MEN'S DOUBLES

1932	James M. Jacobson-George T. Bacon, Jr., New Rochelle, N. Y.
1933	Paul Pearson-Edwin Lewis, Chicago*
	Ralph Langsam-Lloyd Waterson, New York*
1934	Samuel Silberman-Alan Lobell, New York*
	Sol Schiff, N. Y.-Manny Moskowitz, Rutherford, N. J.*
1935	A. Berenbaum, N. Y.-Edward Silverglade, Trenton, N. J.
1936	James McClure, Indianapolis-Robert Blattner, St. Louis†
	James M. Jacobson, New Rochelle, N. Y.-Sol Schiff, New York†
1937	Laszlo Bellak, Hungary-Standa Kolar, Czechoslovakia†
1938	Sol Schiff, New York-James McClure, Indianapolis
1939	Laszlo Bellak-Tibor Hazi, Hungary
1940	Sol Schiff, New York-James McClure, Indianapolis
1941	Edward Pinner-Cy Sussman, New York
1942	Edward Pinner-Cy Sussman, New York
1943	Laszlo Bellak, New York-Tibor Hazi, Philadelphia
1944	William Holzrichter, Chicago-Laszlo Bellak, N. Y.
1945	John Somael, New York-Max Hersh, Detroit
1946	Edward Pinner-Cy Sussman, New York
1947	Douglas Cartland-Arnold Fetbrod, New York
1948	Tibor Hazi, Washington-John Somael, New York
1949	Martin Reisman-Sol Schiff, New York
1950	John Leach-Jack Carrington, England
1951	M. Reisman, N. Y.-W. Holzrichter, Chicago
1952	Richard Miles-Sol Schiff, New York

WOMEN'S SINGLES

1933	Jessie Purves and Mrs. Fan Pockrose*
1934	Ruth Hughes Aarons and Iris Little*
1935	Ruth Hughes Aarons
1936	Ruth Hughes Aarons†
1937	Ruth Hughes Aarons†
1938	Emily Fuller
1939	Emily Fuller
1940	Sally Green
1941	Sally Green
1942	Sally Green
1943	Sally Green
1944	Sally Green
1945	David Hawthorn
1946	Bernice Charney
1947	Leah Thall
1948	Peggy McLean
1949	Mrs. Leah Thall Neuberger
1950	Mrs. Reba K. Monness
1951	Mrs. Leah Thall Neuberger
1952	Mrs. Leah Thall Neuberger

* Co-champions. At the time there were two national associations, each with its own champion. † Open championships. ‡ Closed championships.

GOLF

IT MAY BE that golf originated in Holland—historians believe it did—but certainly Scotland fostered the game and is famous for it. In fact, in 1457 the Scottish Parliament, disturbed because football and golf had lured young Scots from the more soldierly exercise of archery, passed an ordinance that "futeball and golf be utterly cryit doun and nocht usit". James I and Charles I of the royal line of Stuarts were golf enthusiasts, whereby the game came to be known as "the royal and ancient game of golf".

The golf balls used in the early games were leather covered and stuffed with feathers. Clubs of all kinds were fashioned by hand to suit individual players. The great step in spreading the game came with the change from the feather ball to the gutta-percha ball about 1850, and in 1860 formal competition began with the establishment of an annual tournament for the British open championship. There are records of "golf clubs" in the United

States as far back as colonial days but no proof of actual play before John Reid and some friends laid out six holes on the Reid lawn in Yonkers, N. Y., in 1888 and played there with the golf balls and clubs brought over from Scotland by Robert Lockhart. This group then formed the St. Andrews Golf Club of Yonkers, and golf was established in this country.

However, it remained a rather sedate and almost aristocratic pastime until a 20-year-old ex-caddy, Francis Ouimet of Boston, defeated two great British professionals, Harry Vardon and Ted Ray, in the United States Open championship at Brookline, Mass., in 1913. This feat put the game and Francis Ouimet on the front pages of the newspapers and stirred a wave of enthusiasm for the sport. The greatest feat so far in golf history was that of Robert Tyre Jones, Jr. of Atlanta, Ga., in winning the British Open, the British Amateur, the U. S. Open and the U. S. Amateur titles in one year, 1930.

Golf Statistics

Source: United States Golf Association.

UNITED STATES OPEN CHAMPIONS

Year	Winner	Score	Where played	Year	Winner	Score	Where played
1895	Horace Rawlins.....	173	Newport	1923	R. T. Jones, Jr.(a,b)....	296	Inwood
1896	James Foulis.....	152	Shinnecock Hills	1924	Cyril Walker.....	297	Oakland Hills
1897	Joe Lloyd.....	162	Chicago	1925	W. Macfarlane (a).....	291	Worcester
1898*	Fred Herd.....	328	Myopia	1926	R. T. Jones, Jr.(a,b)....	293	Scioto
1899	Willie Smith.....	315	Baltimore	1927	Tommy Armour (a).....	301	Oakmont
1900	Harry Vardon.....	313	Chicago	1928	Johnny Farrell (a).....	294	Olympia Fields
1901	Willie Anderson (a).....	331	Myopia	1929	R. T. Jones, Jr.(a,b)....	294	Winged Foot
1902	L. Auchterlonie.....	307	Garden City	1930	R. T. Jones, Jr.(b).....	287	Interlachen
1903	Willie Anderson (a).....	307	Baltusrol	1931	Billy Burke (a).....	292	Inverness
1904	Willie Anderson.....	303	Glen View	1932	Gene Sarazen.....	286	Fresh Meadow
1905	Willie Anderson.....	314	Myopia	1933	John Goodman (b).....	287	North Shore
1906	Alex Smith.....	295	Onwentsia	1934	Olin Dutra.....	293	Merion
1907	Alex Ross.....	302	Philadelphia	1935	Sam Parks, Jr.....	299	Oakmont
1908	Fred McLeod (a).....	322	Myopia	1936	Tony Manero.....	282	Baltusrol
1909	George Sargent.....	290	Englewood	1937	Ralph Guldahl.....	281	Oakland Hills
1910	Alex Smith (a).....	298	Philadelphia	1938	Ralph Guldahl.....	284	Cherry Hills
1911	J. J. McDermott (a).....	307	Chicago	1939	Byron Nelson (a).....	284	Philadelphia
1912	J. J. McDermott.....	294	Buffalo	1940	W. Lawson Little, Jr.(a)..	287	Canterbury
1913	Francis Ouimet (a,b)....	304	Brookline	1941	Craig Wood.....	284	Colonial
1914	Walter Hagen.....	290	Midlothian	1942-45	No tournaments†		
1915	Jerome D. Travers (b)...	297	Baltusrol	1946	Lloyd Mangrum (a).....	284	Canterbury
1916	Charles Evans, Jr.(b)...	286	Minikahda	1947	Lew Worsham (a).....	282	St. Louis
1917-18	No tournaments†			1948	Ben Hogan.....	276	Riviera
1919	Walter Hagen (a).....	301	Brae Burn	1949	Cary Middlecoff.....	286	Medinah
1920	Edward Ray.....	295	Inverness	1950	Ben Hogan (a).....	287	Merion
1921	James M. Barnes.....	289	Columbia	1951	Ben Hogan.....	287	Oakland Hills
1922	Gene Sarazen.....	288	Skokie	1952	Julius Boros.....	281	Northwood

(a) Won play-off. (b) Amateur. * In 1898 competition was extended to 72 holes. † In 1917, Jock Hutchison, with a 292, won an Open Patriotic Tournament for the benefit of the American Red Cross at Whitemarsh Valley Country Club. ‡ In 1942, Ben Hogan, with a 271, won a Hale American National Open Tournament for the benefit of the Navy Relief Society and USO at Ridgemoor Country Club.

UNITED STATES AMATEUR CHAMPIONS

Year	Winner	Where played	Year	Winner	Where played
1895	Charles B. Macdonald.....	Newport	1923	Max R. Marston.....	Flossmoor
1896	H. J. Whigham.....	Sinnecock Hills	1924	R. T. Jones, Jr.....	Merion
1897	H. J. Whigham.....	Chicago	1925	R. T. Jones, Jr.....	Oakmont
1898	Findlay S. Douglas.....	Morris County	1926	George Von Elm.....	Baltusrol
1899	H. M. Harriman.....	Onwentsia	1927	R. T. Jones, Jr.....	Minikanda
1900	Walter J. Travis.....	Garden City	1928	R. T. Jones, Jr.....	Brae Burn
1901	Walter J. Travis.....	Atlantic City	1929	H. R. Johnston.....	Del Monte
1902	Louis N. James.....	Glen View	1930	R. T. Jones, Jr.....	Merion
1903	Walter J. Travis.....	Nassau	1931	Francis Ouimet.....	Beverly
1904	H. Chandler Egan.....	Baltusrol	1932	C. R. Somerville.....	Baltimore
1905	H. Chandler Egan.....	Chicago	1933	G. T. Dunlap, Jr.....	Kenwood
1906	Eben M. Byers.....	Englewood	1934	W. Lawson Little, Jr.....	Brookline
1907	Jerome D. Travers.....	Eucifid	1935	W. Lawson Little, Jr.....	Cleveland
1908	Jerome D. Travers.....	Garden City	1936	John W. Fischer.....	Garden City
1909	Robert A. Gardner.....	Chicago	1937	John Goodman.....	Alderwood
1910	W. C. Fownes, Jr.....	Brookline	1938	Willie Turnesa.....	Oakmont
1911	Harold H. Hilton.....	Apawamis	1939	Marvin H. Ward.....	North Shore
1912	Jerome D. Travers.....	Chicago	1940	R. D. Chapman.....	Winged Foot
1913	Jerome D. Travers.....	Garden City	1941	Marvin H. Ward.....	Omaha
1914	Francis Ouimet.....	Ekwanok	1946	Ted Bisnop.....	Baltusrol
1915	Robert A. Gardner.....	Detroit	1947	Robert Kregel.....	Del Monte
1916	Charles Evans, Jr.....	Merion	1948	Willie Turnesa.....	Memphis
1919	S. D. Herron.....	Oakmont	1949	Charles Coe.....	Oak Hill
1920	Charles Evans, Jr.....	Engineers'	1950	Sam Urzelta.....	Minneapolis
1921	Jesse P. Guilford.....	St. Louis	1951	Billy Maxwell.....	Saucon Valley
1922	Jess W. Sweetser.....	Brookline	1952	Jack Westland.....	Seattle

UNITED STATES WOMEN AMATEUR CHAMPIONS

1895	Mrs. C. S. Brown.....	Meadow Brook	1923	Edith Cummings.....	Westchester-Biltmore
1896	Beatrix Hoyt.....	Morris County	1924	Mrs. D. C. Hurd.....	Rhode Island
1897	Beatrix Hoyt.....	Essex (Mass.)	1925	Glenna Collett.....	St. Louis
1898	Beatrix Hoyt.....	Ardley	1926	Mrs. G. H. Stetson.....	Merion
1899	Ruth Underhill.....	Philadelphia	1927	Mrs. M. B. Horn.....	Cherry Valley
1900	Frances C. Griscom.....	Sinnecock Hills	1928	Glenna Collett.....	Hot Springs (Va.)
1901	Genevieve Hecker.....	Baltusrol	1929	Glenna Collett.....	Oakland Hills
1902	Genevieve Hecker.....	Brookline	1930	Glenna Collett.....	Los Angeles
1903	Bessie Anthony.....	Chicago	1931	Helen Hicks.....	Buffalo
1904	G. M. Bishop.....	Merion	1932	Virginia Van Wie.....	Salem
1905	Pauline Mackay.....	Morris County	1933	Virginia Van Wie.....	Exmoor
1906	Harriet S. Curtis.....	Brae Burn	1934	Virginia Van Wie.....	Whitemarsh Valley
1907	Margaret Curtis.....	Midlothian	1935	Mrs. E. H. Vore, Jr.....	Interlachen
1908	K. C. Harley.....	Chevy Chase	1936	Pamela Barton.....	Canoe Brook
1909	D. I. Campbell.....	Merion	1937	Mrs. J. A. Page, Jr.....	Memphis
1910	D. I. Campbell.....	Homewood	1938	Patty Berg.....	Westmoreland
1911	Margaret Curtis.....	Baltusrol	1939	Betty Jameson.....	Wee Burn
1912	Margaret Curtis.....	Essex (Mass.)	1940	Betty Jameson.....	Del Monte
1913	Gladys Ravenscroft.....	Wilmington	1941	Mrs. Frank Newell.....	Brookline
1914	Mrs. H. A. Jackson.....	Nassau	1946	Mrs. M. D. Zaharias.....	Tulsa
1915	Mrs. C. H. Vanderbeck.....	Onwentsia	1947	Louise Suggs.....	Franklin Hills
1916	Alexa Stirling.....	Belmont Springs	1948	Grace Lenczyk.....	Pebble Beach
1919	Alexa Stirling.....	Shawnee	1949	Mrs. D. G. Porter.....	Merion
1920	Alexa Stirling.....	Mayfield	1950	Beverly Hanson.....	East Lake
1921	Marion Hollins.....	Hollywood (N. J.)	1951	Dorothy Kirby.....	Town and Country
1922	Glenna Collett.....	Greenbrier	1952	Mrs. Jacqueline Pung.....	Waverley

United States Public Links Champions

1922	Edmund R. Held.....	Toledo, Ohio	1936	B. Patrick Abbott.....	Farmingdale, N. Y.
1923	Richard J. Walsh.....	Washington, D. C.	1937	Bruce N. McCormick.....	San Francisco, Calif.
1924	Joseph Coble.....	Dayton, Ohio	1938	Al Leach.....	Cleveland, Ohio
1925	R. J. McAuliffe.....	Garden City, N. Y.	1939	Andrew Szwedko.....	Baltimore, Md.
1926	Lester Bolstad.....	Buffalo, N. Y.	1940	Robert C. Clark.....	Detroit, Mich.
1927	C. F. Kauffmann.....	Cleveland, Ohio	1941	William M. Welch.....	Spokane, Wash.
1928	C. F. Kauffmann.....	Philadelphia, Pa.	1946	Smiley Quick.....	Denver, Colo.
1929	C. F. Kauffmann.....	St. Louis, Mo.	1947	Wilfred Crossley.....	Minneapolis, Minn.
1930	Robert E. Wingate.....	Jacksonville, Fla.	1948	Michael R. Ferentz.....	Atlanta, Ga.
1931	Charles Ferrara.....	St. Paul, Minn.	1949	Ken Towns.....	Los Angeles, Calif.
1932	R. L. Miller.....	Louisville, Ky.	1950	Stan Bietal.....	Louisville, Ky.
1933	Charles Ferrara.....	Portland, Oreg.	1951	Dave Stanley.....	Milwaukee, Wis.
1934	David A. Mitchell.....	Pittsburgh, Pa.	1952	Omer L. Bogan.....	Miami, Fla.
1935	Frank Strafack.....	Indianapolis, Ind.			

UNITED STATES P. G. A. CHAMPIONS

Year	Winner	Where played	Year	Winner	Where played
1916	Jim Barnes.....	Siwanoy, N. Y.	1935	Johnny Revolta.....	Twin Hills, Okla.
1917-18	No tournaments		1936	Denny Shute.....	Pinehurst, N. C.
1919	Jim Barnes.....	Engineers, L. I.	1937	Denny Shute.....	Pittsburgh, Pa.
1920	Jock Hutchison.....	Flossmoor, Ill.	1938	Paul Runyan.....	Shawnee-on-Delaware, Pa.
1921	Walter Hagen.....	Inwood, L. I.	1939	Henry Picard.....	Pomonok, L. I.
1922	Gene Sarazen.....	Oakmont, Pa.	1940	Byron Nelson.....	Hershey, Pa.
1923	Gene Sarazen.....	Pelham, N. Y.	1941	Victor Ghezzi.....	Denver, Colo.
1924	Walter Hagen.....	French Lick, Ind.	1942	Sam Snead.....	Atlantic City, N. J.
1925	Walter Hagen.....	Olympia Fields, Ill.	1943	No tournament	
1926	Walter Hagen.....	Salisbury, L. I.	1944	Bob Hamilton.....	Spokane, Wash.
1927	Walter Hagen.....	Dallas, Texas	1945	Byron Nelson.....	Dayton, Ohio
1928	Leo Diegel.....	Baltimore, Md.	1946	Ben Hogan.....	Portland, Oreg.
1929	Leo Diegel.....	Hillcrest, Calif.	1947	Jim Ferrier.....	Plum Hollow, Mich.
1930	Tommy Armour.....	Fresh Meadow, L. I.	1948	Ben Hogan.....	St. Louis, Mo.
1931	Tom Creavy.....	Wannamissett, R. I.	1949	Sam Snead.....	Richmond, Va.
1932	Olin Dutra.....	Keller Course, Minn.	1950	Chandler Harper.....	Columbus, Ohio
1933	Gene Sarazen.....	Blue Mound, Wis.	1951	Sam Snead.....	Oakmont, Pa.
1934	Paul Runyan.....	Park Club, Buffalo	1952	Jim Turnesa.....	Louisville, Ky.

BRITISH OPEN CHAMPIONS

Year	Winner	Score	Where played	Year	Winner	Score	Where played
1860	W. Park.....	174	Prestwick	1903	H. Vardon.....	300	Prestwick
1861	Tom Morris, Sr.....	163	Prestwick	1904	Jack White.....	296	Sandwich
1862	Tom Morris, Sr.....	163	Prestwick	1905	James Braid.....	318	St. Andrews
1863	W. Park.....	168	Prestwick	1906	James Braid.....	300	Muirfield
1864	Tom Morris, Sr.....	167	Prestwick	1907	Arnaud Massy.....	312	Hoylake
1865	A. L. Strath.....	162	Prestwick	1908	James Braid.....	291	Prestwick
1866	W. Park.....	169	Prestwick	1909	J. H. Taylor.....	295	Deal
1867	Tom Morris, Sr.....	170	Prestwick	1910	James Braid.....	299	St. Andrews
1868	Tom Morris, Jr.....	170	Prestwick	1911	Harry Vardon (a).....	303	Sandwich
1869	Tom Morris, Jr.....	154	Prestwick	1912	E. Ray.....	295	Muirfield
1870	Tom Morris, Jr.....	149	Prestwick	1913	J. H. Taylor.....	304	Hoylake
1872	Tom Morris, Jr.....	166	Prestwick	1914	Harry Vardon.....	306	Prestwick
1873	Tom Kidd.....	179	St. Andrews	1915-19	No tournaments		
1874	Mungo Park.....	159	Musselburgh	1920	George Duncan.....	303	Deal
1875	Willie Park.....	166	Prestwick	1921	Jock Hutchison (a).....	296	St. Andrews
1876	Bob Martin.....	176	St. Andrews	1922	Walter Hagen.....	300	Sandwich
1876	Jamie Anderson.....	160	Musselburgh	1923	A. G. Havers.....	295	Troon
1878	Jamie Anderson.....	157	Prestwick	1924	Walter Hagen.....	301	Hoylake
1879	Jamie Anderson.....	170	St. Andrews	1925	Jim Barnes.....	300	Prestwick
1880	Bob Ferguson.....	162	Musselburgh	1926	R. T. Jones, Jr.....	291	Royal Lytham, St. Annes
1881	Bob Ferguson.....	170	Prestwick	1927	R. T. Jones, Jr.....	285	St. Andrews
1882	Bob Ferguson.....	171	St. Andrews	1928	Walter Hagen.....	292	Sandwich
1883	W. L. Fernie (a).....	159	Musselburgh	1929	Walter Hagen.....	292	Muirfield
1884	Jack Simpson.....	160	Prestwick	1930	R. T. Jones, Jr.....	291	Hoylake
1885	Bob Martin.....	171	St. Andrews	1931	T. D. Armour.....	296	Carnoustie
1886	D. L. Brown.....	157	Musselburgh	1932	G. Sarazen.....	283	Princes, Sandwich
1887	W. Park, Jr.....	161	Prestwick	1933	D. Shute (a).....	292	St. Andrews
1888	Jack Burns.....	171	St. Andrews	1934	T. H. Cotton.....	283	Sandwich
1889	W. Park, Jr.(a).....	155	Musselburgh	1935	A. Perry.....	283	Muirfield
1890	John Ball.....	164	Prestwick	1936	A. H. Padgham.....	287	Royal Liverpool
1891	Hugh Kirkaldy.....	166	St. Andrews	1937	T. H. Cotton.....	290	Carnoustie
1892*	H. H. Hilton.....	305	Muirfield	1938	R. A. Whitcombe.....	295	Sandwich
1893	W. Auchterlonie.....	322	Prestwick	1939	R. Burton.....	290	St. Andrews
1894	J. H. Taylor.....	326	Sandwich	1940-45	No tournaments		
1895	J. H. Taylor.....	322	St. Andrews	1946	Sam Snead.....	290	St. Andrews
1896	H. Vardon (a).....	316	Muirfield	1947	Fred Daly.....	293	Hoylake
1897	H. H. Hilton.....	314	Hoylake	1948	Henry Cotton.....	284	Gullane, Muirfield
1898	H. Vardon.....	307	Prestwick	1949	Bobby Locke (a).....	283	Sandwich, Deal
1899	H. Vardon.....	310	Sandwich	1950	Bobby Locke.....	279	Troon, Lochgreen
1900	J. H. Taylor.....	309	St. Andrews	1951	Max Faulkner.....	285	Portrush
1901	James Braid.....	309	Muirfield	1952	Bobby Locke.....	287	Royal Lytham, St. Annes
1902	Alex Herd.....	307	Hoylake				

(a) Won play-off. * In 1892 competition was extended to 72 holes.

WOMEN'S NATIONAL OPEN CHAMPIONS

1946—Patty Berg (match play).....	—	1950—Mrs. Mildred D. Zaharias.....	291
1947—Betty Jameson.....	295	1951—Betsy Rawls.....	293
1948—Mrs. Mildred D. Zaharias.....	300	1952—Louise Suggs.....	284
1949—Louise Suggs.....	291		

BRITISH AMATEUR CHAMPIONS

Year	Winner	Where played	Year	Winner	Where played
1885	A. F. MacFie	Hoylake	1915-19	No tournaments	
1886	H. G. Hutchinson	St. Andrews	1920	Cyril J. H. Tolley	Muirfield
1887	H. G. Hutchinson	Hoylake	1921	W. I. Hunter	Hoylake
1888	John Ball	Prestwick	1922	E. W. E. Holderness	Prestwick
1889	J. E. Laidlay	St. Andrews	1923	R. H. Wethered	Deal
1890	John Ball	Hoylake	1924	E. W. E. Holderness	St. Andrews
1891	J. E. Laidlay	St. Andrews	1925	Robert Harris	Westward Ho
1892	John Ball	Sandwich	1926	Jess W. Sweetser	Muirfield
1893	Peter L. Anderson	Prestwick	1927	Dr. W. Twaddell	Hoylake
1894	John Ball	Hoylake	1928	T. P. Perkins	Prestwick
1895	L. M. B. Melville	St. Andrews	1929	C. J. H. Tolley	Sandwich
1896	F. G. Tait	Sandwich	1930	R. T. Jones, Jr.	St. Andrews
1897	A. J. T. Allan	Muirfield	1931	E. Martin Smith	Westward Ho
1898	F. G. Tait	Hoylake	1932	J. De Forest	Muirfield
1899	John Ball	Prestwick	1933	Mon. M. Scott	Hoylake
1900	H. H. Hilton	Sandwich	1934	W. Lawson Little, Jr.	Prestwick
1901	H. H. Hilton	St. Andrews	1935	W. Lawson Little, Jr.	Royal Lytham, St. Annes
1902	C. Hutchings	Hoylake	1936	H. Thomson	St. Andrews
1903	R. Maxwell	Muirfield	1937	R. Swaeny, Jr.	Sandwich
1904	W. J. Travis	Sandwich	1938	C. R. Yates	Troon
1905	A. G. Barry	Prestwick	1939	A. Kyle	Hoylake
1906	James Robb	Hoylake	1940-45	No tournaments	
1907	John Ball	St. Andrews	1946	J. Bruen	Birkdale
1908	E. A. Lassen	Sandwich	1947	Willie Turnesa	Carnoustie
1909	R. Maxwell	Muirfield	1948	Frank Stranahan	Sandwich
1910	John Ball	Hoylake	1949	Max McGready	Portmarnock
1911	H. H. Hilton	Prestwick	1950	Frank Stranahan	St. Andrews
1912	John Ball	Westward Ho	1951	Richard D. Chapman	Portcawl
1913	H. H. Hilton	St. Andrews	1952	Harvie Ward	Prestwick
1914	J. L. C. Jenkins	Sandwich			

Intercollegiate Golf Association of America Champions

Year	Individual	Team	Year	Individual	Team
1897	Louis P. Bayard, Jr., Princeton	Yale	1917-18	No tournaments	
1898*	John Reid, Jr., Yale	Harvard	1919	A. L. Walker, Jr., Columbia	Princeton
	James F. Curtis, Harvard	Yale	1920	Jess W. Sweetser, Yale	Princeton
1899	Percy Pyne, 2d, Princeton	Harvard	1921	J. Simpson Dean, Princeton	Dartmouth
1900	No tournament		1922	Pollack Boyd, Dartmouth	Princeton
1901	H. Lindsay, Harvard	Harvard	1923	Dexter Cummings, Yale	Princeton
1902*	Charles Hitchcock, Jr., Yale	Yale	1924	Dexter Cummings, Yale	Yale
	H. Chandler Egan, Harvard	Harvard	1925	G. Fred Lamprecht, Tulane	Yale
1903	F. O. Reinhart, Princeton	Harvard	1926	G. Fred Lamprecht, Tulane	Yale
1904	A. L. White, Harvard	Harvard	1927	Watts Gunn, Georgia Tech.	Princeton
1905	Robert Abbott, Yale	Yale	1928	M. J. McCarthy, Jr., Georgetown	Princeton
1906	W. E. Clow, Jr., Yale	Yale	1929	Tom Aycock, Yale	Princeton
1907	Ellis Knowles, Yale	Yale	1930	George T. Dunlap, Jr., Princeton	Princeton
1908	H. H. Wilder, Harvard	Yale	1931	George T. Dunlap, Jr., Princeton	Yale
1909	Albert Seckel, Princeton	Yale	1932	John W. Fischer, Jr., Michigan	Yale
1910	Robert E. Hunter, Yale	Yale	1933	Walter Emery, Oklahoma	Yale
1911	George C. Stanley, Yale	Yale	1934	Charles R. Yates, Georgia Tech.	Michigan
1912	F. C. Davidson, Harvard	Yale	1935	Ed White, U. of Texas	Michigan
1913	Nathaniel Wheeler, Yale	Yale	1936	Charles Kocsis, Michigan	Yale
1914	Edward P. Allis, 3d, Harvard	Princeton	1937	Fred Haas, Jr., L. S. U.	Princeton
1915	Francis R. Blossom, Yale	Yale	1938	John P. Burke, Georgetown	Stanford
1916	J. W. Hubbell, Harvard	Princeton			

* Two tournaments, in spring and fall.

National Collegiate Athletic Association Champions

Year	Individual	Team	Year	Individual	Team
1939	Vincent D'Antoni, Tulane	Stanford	1945	John Lorms, Ohio State	Ohio State
1940	F. Dixon Brooke, Virginia	Princeton*	1946	George Hamer, Georgia	Stanford
1941	Earl Stewart, L. S. U.	L. S. U.*	1947	Dave Barclay, Michigan	L. S. U.
1942	Frank Tatum, Jr., Stanford	Stanford	1948	Bobby Harris, San Jose St.	San Jose St.
		Stanford*	1949	Harvie Ward, North Carolina	No. Tex. St.
1943	Wallace Ulrich, Carleton	Yale	1950	Fred Wampler, Purdue	No. Tex. St.
1944	Louis Lick, Minnesota	Notre Dame	1951	Tom Nieporte, Ohio State	No. Tex. St.
			1952	Jim Vickers, Oklahoma	No. Tex. St.

* Tie.

Walker Cup Record

MEN (AMATEUR)

Year	Where played
*1921 United States 9, Great Britain 3...	Hoylake
1922 United States 8, Great Britain 4...	Southampton
1923 United States 6, Great Britain 5...	St. Andrews,
One match halved	Scotland
1924 United States 9, Great Britain 3...	Garden City G. C.
1926 United States 6, Great Britain 5...	St. Andrews,
One match halved	Scotland
1928 United States 11, Great Britain 1...	Wheaton, Ill.
1930 United States 10, Great Britain 2...	Royal St. George's
1932 United States 8, Great Britain 1...	The Country Club,
Three matches halved	Brookline, Mass.
1934 United States 9, Great Britain 2...	St. Andrews,
One match halved	Scotland
1936 United States 9, Great Britain 0...	Pine Valley G. C.,
Three matches halved	Clementon, N. J.
1938 Great Britain 7, United States 4...	St. Andrews,
One match halved	Scotland
1947 United States 8, Great Britain 4...	St. Andrews
1949 United States 10, Great Britain 2...	Winged Foot
1951 United States 6, Great Britain 3...	Southport

* Informal match.

Curtis Cup Record

WOMEN

Year	Where played
*1930 Great Britain 8, United States 6....	Sunningdale
1932 United States 5½, Great Britain 3½...	Wentworth, Eng.
1934 United States 6½, Great Britain 2½...	Chevy Chase
1936 United States 4½, Great Britain 4½...	Gleneagles
1938 United States 5½, Great Britain 3½...	Essex C. C.
1948 United States 6½, Great Britain 2½...	Birkdale
1950 United States 7½, Great Britain 1½...	Buffalo
1952 Great Britain 5, United States 4.....	Mulrfield

* Informal match.

P. G. A. TOURNEY WINNERS, 1952

	Score
Los Angeles Open—Tommy Bolt*	289
Crosby Invitational—Jimmy Demaret.	145
Senior championship—Ernie Newham.	146
National Senior Open—Al Watrous.	208
San Diego Open—Ted Kroll.	276
Phoenix Open—Lloyd Mangrum.	274
Tucson Open—Henry Williams.	274
El Paso Open—Cary Middlecoff.	260
Texas Open—Jack Burke, Jr.	277
Houston Open—Jack Burke, Jr.	281
Baton Rouge Open—Jack Burke, Jr.*	266
St. Petersburg Open—Jack Burke, Jr.	138
Seminole Pro-Amateur—Sam Snead.	280
Jacksonville Open—Doug Ford†	272
Wilmington Azalea Open—Jimmy Clark.	286
Augusta Masters—Sam Snead.	277
Greensboro Open—Dave Douglas.	264
Greenbrier Pro-Amateur—Sam Snead.	279
Pan-American Open—Lloyd Mangrum.	57 pts.
Palm Beach Round-Robin—Sam Snead.	279
Colonial National—Ben Hogan.	274
Western Open—Lloyd Mangrum.	279
Ardmore Open—Dave Douglas.	281
U.S. Open—Julius Boros.	—
P. G. A. championship—Jim Turnesa.	—
Inverness Round-Robin—Sam Snead and	—
Jim Ferrier.	plus 13
Motor City Open—Cary Middlecoff.	274
St. Paul Open—Cary Middlecoff.	266
Canadian Open—Johnny Palmer.	263
Sloux City Open—Al Bessellink.	266
All American Open—Sam Snead.	271
Tam O'Shanter world championship—Julius	—
Boros.	276
Kansas City Open—Cary Middlecoff.	276
Fort Wayne Open—Jimmy Clark.	272
The Insurance City Open—Ted Kroll.	273
Empire State Open—Jim Ferrier.	262
Eastern Open—Sam Snead.	275
National Celebrities Open—Jimmy Demaret.	282

* Won playoff. † Awarded first money on forfeit.

Ryder Cup Record

MEN (PROFESSIONAL)

Year	Where played
*1926 Great Britain 13½, United States 1½	Wentworth
1927 United States 9½, Great Britain 2½...	Worcester C. C.
1929 Great Britain 7, United States 5.....	Moortown, Eng.
1931 United States 9, Great Britain 3.....	Scioto C. C.
1933 Great Britain 6½, United States 5½...	Southport, Eng.
1935 United States 9, Great Britain 3.....	Ridgewood C. C.
1937 United States 8, Great Britain 4.....	Southport, Eng.
1947 United States 11, Great Britain 1.....	Portland, Oreg.
1949 United States 7, Great Britain 5.....	Ganton, Eng.
1951 United States 9½, Great Britain 2½...	Pinehurst, N. C.

* Informal match.

OTHER CHAMPIONS, 1952

Canadian Amateur—Larry Bouchey, Inglewood, Calif.
 Eastern Intercollegiate—Paul Harney, Holy Cross
 French Amateur—Dick Chapman, Pinehurst, N. C.
 National Caddie—Al Chandler, Los Angeles
 National Junior—Don Eplinghoff, Orlando, Fla.
 National Lefthanders—Ross Collins, Monticello, Ark.
 North-South Amateur—Frank Stranahan, Toledo
 Southern Amateur—Gay Brewer, Jr., Lexington, Ky.
 Trans-Mississippi—Charles Coe, Oklahoma City
 Western Amateur—Frank Stranahan

WOMEN

British Amateur—Moira Paterson, Scotland
 Canadian Open—Edoan Anderson, Helena, Mont.
 National Intercollegiate—Mary Ann Villegas, St. Mary's Dominican
 National Junior—Mary K. Wright, La Jolla, Calif.
 North-South Amateur—Barbara Romack, Sacramento, Calif.
 Southern Amateur—Kathy McKinnon, Lakeland, Fla.
 Trans-Mississippi—Mrs. Lyle Bowman, Richmond, Calif.
 Western Amateur—Polly Riley, Fort Worth, Texas
 Western Open—Betsy Rawls, Austin, Texas

Medal Play

	Score
French Open—Bobby Locke, South Africa.....	268
Irish Open—Fred Daly, Ireland.....	284
Mexican Open—Bobby Locke.....	276
Midwest Amateur—Nap Chinick, Benton Harbor, Mich.....	154
National Senior—Thomas C. Robbins, Larchmont, N. Y.....	147
Southern Intercollegiate—Billy Maxwell, North Texas State.....	283

WOMEN

Eastern Amateur—Helen Sigel, Philadelphia.....	230
Eastern Open—Betsy Rawls, Austin, Texas.....	226
National Senior—Mrs. Richard Hellmann, Scarsdale, N. Y.....	161
Titleholders—Mrs. Mildred D. Zaharias, Tampa, Fla.....	299
Weatheravane Open—Betsy Rawls.....	590

TEAM

Americas Cup (amateurs)—United States 12, Canada 10, Mexico 8.
 Duke of Devonshire Trophy (seniors)—United States beat Canada.
 Eastern Intercollegiate—Virginia
 Griscom Cup (women)—New York
 Harding Trophy (public links)—Chicago
 Hopkins Cup (professionals)—United States 20½, Canada 6½.
 Southern Intercollegiate—North Texas State

Tam O'Shanter Winners, 1952

WORLD CHAMPIONSHIP TOURNAMENTS

Professional—*Julius Boros, Mid Pines, N. C.	276
Amateur—Frank Stranahan, Toledo.....	280
Women's Pro—Betty Jameson, San Antonio.....	303
Women's Amateur—Mary Ann Villegas, New Orleans.....	325

* Beat Cary Middlecoff in playoff.

ALL-AMERICAN

Professional—Sam Snead, White Sulphur Springs, W. Va.....	271
Amateur—Frank Stranahan.....	297
Women's Open—Louise Suggs, Carrollton, Ga.	300

NATIONAL COLLEGIATE A. A. CHAMPIONS, 1952

Source: Walter Byers, Executive Director, N. C. A. A.

Track and Field

(At Berkeley, Calif.)

100 m.—Jim Goffiday, Northwestern.....	0:10.4
200 m.—Jim Ford, Drake.....	0:21.0
400 m.—George Rhoden, Morgan State.....	0:46.3
800 m.—John Barnes, Occidental.....	1:49.6
1,500 m.—Bob McMillen, Occidental.....	3:50.7
5,000 m.—Wes Santee, Kansas.....	14:36.3
10,000 m.—Walter Deike, Wisconsin.....	32:25.1
3,000-m. steeplechase—Bob McMullen, San Jose State.....	9:31.2
110-m. hurdles—Jack Davis, So. California.....	0:14.0
400-m. hurdles—Bob Deviney, Kansas.....	0:51.7
Broad jump—George Brown, U. C. L. A.....	25 ft. 1 1/2 in.
High jump—Emery Barnes, Oregon, and Walter Davis, Texas A. & M. (tie).....	6 ft. 8 in.
Discus—Sim Iness, So. California.....	173 ft. 2 3/4 in.
*Hammer—Gilbert Borjesson, Brown.....	176 ft. 4 3/4 in.
Hop, step, and jump—George Shaw, Columbia.....	49 ft. 1 1/4 in.
Javelin—George Roseme, California.....	228 ft. 8 3/4 in.
Pole vault—Tie among Dick Coleman, Illinois; Dave Martindale, Idaho; Bill Priddy, San Jose State; Lyle Dickey, Oregon State, and Gordon Riddell, Colorado A. & M.....	13 ft. 9 in.
Shot-put—Parry O'Brien, So. California.....	57 ft. 5/8 in.
Team—Southern California.....	66 1/2 pts.

* Held at Boston University's Nickerson Field.

Boxing

112 lb.—Ray Kubeyama, Hawaii.....
119 lb.—Frank Echevarria, Idaho.....
125 lb.—Neil Ofsthun, Minnesota.....
132 lb.—Archie Slaten, Miami (Fla.).....
139 lb.—Chuck Adkins, San Jose State.....
147 lb.—Bob Morgan, Wisconsin.....
156 lb.—Ellsworth Webb, Idaho State.....
165 lb.—Gordon Cladson, Washington State.....
178 lb.—Charles Spieser, Michigan State.....
Heavyweight—Bob Ranck, Wisconsin.....
Team—Wisconsin (27 points)
John S. LaRowe Trophy—Frank Echevarria

Wrestling

115 lb.—Hugh Perry, Pittsburgh.....
123 lb.—Bill Borders, Oklahoma.....
130 lb.—Gene Lybbert, Iowa Teachers.....
137 lb.—George Layman, Oklahoma A. & M.....
147 lb.—Tom Evans, Oklahoma.....
157 lb.—Bill Weick, Iowa Teachers.....
167 lb.—Joseph Lemyre, Penn State.....
177 lb.—Bentley Lyon, California.....
191 lb.—Harry Lanzi, Toledo.....
Heavyweight—Gene Nicks, Oklahoma A. & M.....
Team—Oklahoma (22 points)

Gymnastics

	Points
All-around—John Beckner, So. California.....	1,486
Flying rings—Jack Sharp, Florida State.....	274
Horizontal bar—Charles Simms, So. Calif.....	281
Parallel bars—John Beckner.....	274
Rope climb—John Claybrook, Army.....	35s.
Side horse—Frank Bare, Illinois.....	268
Trampoline—Dick Gutting, Florida State.....	275
Tumbling—Robert Sullivan, Illinois.....	276
Team—Florida State University.....	89 1/2 pts.

Golf

Individual—Jim Vickers, Oklahoma.....
Team—North Texas State.....

Swimming

(At Princeton, N. J.)

50-yd. free—Richard Cleveland, Ohio State.....	0:22.3
100-yd. free—Clarke Scholes, Michigan State.....	0:49.9
220-yd. free—Wayne Moore, Yale.....	2:06.8
440-yd. free—Ford Konno, Ohio State.....	4:30.3
1,500-meter free—Ford Konno.....	18:15.5
100-yd. back—Jack Taylor, Ohio State.....	0:57.3
200-yd. back—Yoshi Oyakawa, Ohio State.....	2:07.3
100-yd. breast—John Davies, Michigan.....	0:58.8
200-yd. breast—John Davies.....	2:12.9
150-yd. medley—Burwell Jones, Michigan.....	1:29.8
300-yd. medley relay—Yate (Dick Thoman, Dennis O'Connor, Don Sheff).....	2:48.9
400-yd. free-style relay—Michigan (Thomas Banner, Burwell Jones, Don Hill, Wallace Jeffries).....	3:25.7
1-meter dive—David Browning, Texas.....	535.85 pts.
3-meter dive—David Browning.....	586.4 pts.
Team—Ohio State.....	94 pts.

Fencing

Three-weapon team—Columbia (Stephen Sobel, Danief Chafetz, Alfred Rubin—71 pts.).....
Foil—Harold Goldsmith, C. C. N. Y. (W 26, L 3).....
Epee—Herman Wallner, N. Y. U. (23-7).....
Saber—*Frank Zimolzak, Navy (25-3).....
* Defeated Sobel, Columbia, and Parmacek, Pennsylvania, in title fence-off.

Tennis

Singles—Hugh Stewart, Southern California.....
Doubles—Cliff Mayne-Hugh Ditzler, California.....
Team—U. C. L. A.....

Ice Hockey

Michigan beat Colorado College, 4 to 1, in final.

Baseball

Holy Cross beat Missouri, 8 to 4, in final.

1952 Basketball Final

KANSAS (80)

	G.	F.	PF.	P.
Kenny, lf.....	4	4	2	12
Davenport.....	0	0	1	0
Keller, rf.....	1	0	2	2
Hoag.....	2	5	5	9
Lovellette, c.....	12	9	4	33
Born.....	0	0	0	0
D. Kelley, lg.....	2	3	5	7
Smith.....	0	0	0	0
Lienhard, rg.....	5	2	4	12
Houglund.....	2	1	2	5
Heltholt.....	0	0	0	0
A. Kelley.....	0	0	0	0
Total.....	28	24	25	80

ST. JOHN'S (63)

	G.	F.	PF.	P.
McMahon, lf.....	6	1	4	13
Davis.....	1	2	4	6
Walsh, rf.....	3	0	2	6
Zawoluk, c.....	0	0	0	0
Peterson.....	0	0	0	0
MacGillivray, lg.....	3	2	3	8
Glanconterli.....	0	0	0	0
Duckett, rg.....	2	2	4	6
Walker.....	0	0	4	0
McMorrow.....	1	0	3	2
Sagona.....	2	0	5	4
Total.....	25	13	35	63

Kansas.....	18	23	19	70-80
St. John's (Brooklyn).....	13	14	14	22-63

Free throws missed—Kenny 2, D. Kelley 3, Lovellette 2, Hoag 2, Houglund 2, Davis, Zawoluk 5, Glanconterli 2, MacGillivray 3, McMahon 3.

Shots attempted—Kansas 63, St. John's 55.

EASTERN COLLEGE ATHLETIC CONFERENCE CHAMPIONS, 1952

Source: George L. Shiebler, Administrative Assistant, E. C. A. C.

TEAM

(Won-and-lost records in parentheses)

Baseball League—Southern Division: Cornell (6-2); Northern Division: Brown (6-2)

Basketball League—Princeton (10-2)

Golf Association—Virginia (636 pts.)

Gymnastic League—Army

Pentagonal Hockey League—Yale (7-1)

Swimming League—Yale (7-0)

Tennis Association—Princeton (6-0)

Wrestling Association—Penn State (33 pts.)

Fencing

Three-weapon—New York University (70 pts.)

Foil—City College of New York (26)

Épée—New York University (24)

Saber—Columbia and N. Y. U. (29 each)

Intercollegiate Kowing Assn.

Varsity—Navy

Junior varsity—Navy

Freshmen—Navy

Assn. of Rowing Colleges

Varsity—Navy

Junior varsity—Navy

Freshmen—Navy

Lightweight varsity—Pennsylvania

Lightweight junior varsity—Harvard

Lightweight freshmen—Princeton

Track and Field

Heptagonal Games Assn.—Army (50 pts.)

I. C. A. A. A.—Manhattan (42)

Metropolitan (N. Y.) Assn.—Manhattan (85½)

Middle Atlantic Assn.—La Salle (62)

INDOOR

Heptagonal Games Assn.—Army (40 5/12 pts.)

I. C. A. A. A.—Manhattan (40½)

Metropolitan (N. Y.) Assn.—Manhattan (76)

INDIVIDUAL

Fencing

Foil—Alfred Rubin, Columbia (4-1)

Épée—Herman Wallner, N. Y. U. (4-1)

Saber—Frank Zimotzak, Navy (5-0)

Wrestling

123 lb.—Robert Homan, Penn State

130 lb.—Richard Lemyre, Penn State

137 lb.—George Feuerbach, Lehigh

147 lb.—Frank Bettucci, Cornell

157 lb.—Emil Perona, Rutgers

167 lb.—Joseph Lemyre, Penn State

177 lb.—Alfred Paulekas, Army

Heavyweight—Bradley Glass, Princeton

Team—Penn State (33 points)

Gymnastics

Points

All-around—Jean Cronstedt, Penn State..... 1,322

Flying rings—Jack Kleberg, Army..... 372

Horizontal bar—Jean Cronstedt..... 373

Parallel bars—Michael Quartararo, Navy..... 362

Rope climb—John Balfantyne and John Claybrook, Army (tie)..... 3.6s.

Side horse—Robert Wheeler, Army..... 372

Tumbling—James Sebbo, Syracuse..... 382

Swimming

50-yd. free—Robert Nugent, Rutgers..... 0:23.3

100-yd. free—Donald Sheff, Yale..... 0:51.9

220-yd. free—John Marshall, Yale..... 2:07.5

440-yd. free—Wayne Moore, Yale..... 4:32.3

1,500-meter free—John Marshall..... 19:03.7

100-yd. back—Richard Thoman, Yale..... 0:57.3

200-yd. back—Richard Thoman..... 2:08.4

100-yd. breast—Bob Brawner, Princeton..... 1:00.4

200-yd. breast—Bob Brawner..... 2:17.4

150-yd. medley—Robert Mattson, No. Car. State..... 1:33.2

300-yd. medley relay—Yale (Thoman, Stanton Smith, Sheff)..... 2:50

400-yd. free-style relay—Yale (John Joslyn, Enas Serra, Frank Chamberlain, James Carroll)..... 3:29.5

1-meter dive—Peter Dillingham, Harvard..... 152.02 pts.

3-meter dive—Owen Davies, Navy..... 161.11 pts.

Golf

Champion—Paul Harney, Holy Cross.

Medalist—William Ragland, Princeton (149)

I. C. 4-A Championships, 1952

(At Randall's Island, New York)

100 yd.—John George, California..... 0:09.9

220—Lindy Kemigino, Manhattan..... 0:21.9

440—Dick Malocco, New York U..... 0:47.9

880—Lonnie Spurrier, California..... 1:54.3

1 Mile—Joe LaPierre, Georgetown..... 4:12.4

2 miles—Charles Capozzoli, Georgetown..... 9:17.1

120 hurdles—Peter McCreary, Dartmouth..... 0:14.5

220 hurdles—Laurence Johnson, Army..... 0:23.7

1 Mile relay—Manhattan (Wallace Fina, Ronald Ferraro, Louis Jones, Vernon Dixon)..... 3:15.9

Broad jump—F. Morgan Taylor, Princeton..... 24 ft. 3¼ in.

High jump—Jim Webb, La Salle..... 6 ft. 5¼ in.

Discus—John Ellis, Lafayette..... 154 ft. 9¼ in.

Hammer—Gilbert Borjeson, Brown..... 180 ft. 1½ in.

Javelin—Bob Allison, Navy..... 225 ft. 2¼ in.

Pole vault—Van Zimmerman, Penn., and Robert Linne, Rhode Island State (tie)..... 13 ft.

Shot-put—Arthur Gardiner, Cornell..... 51 ft. 2¼ in.

Team—Manhattan..... 42 pts.

INDOOR

(At Squadron A and Madison Square Garden)

60 yd.—John O'Connell, Manhattan..... 0:06.2

600 yd.—Vernon Dixon, Manhattan..... 1:11.3

1,000 yd.—Carl Joyce, Georgetown..... 2:13.0

1 Mile—Fred Dwyer, Villanova..... 4:13.9

2 miles—Richard Shea, Army..... 9:11.9

60 high hurdles—Pete McCreary, Dartmouth..... 0:07.4

1 Mile relay—Manhattan (Heary Becuk, Wallace Fina, Ronald Ferraro, Robert Carty)..... 3:21.2

2-mile relay—Princeton (Joseph Bolster, Richard Yaffa, Thobun Maxwell, Aibin Knuch)..... 7:49.2

Broad jump—Meredith Gourdine, Cornell..... 24 ft. 5¾ in.

High jump—Jim Webb, La Salle, and Nelson Ehinger, Dartmouth (tie)..... 6 ft. 5¼ in.

Pole vault—Joseph Perlow, Army..... 13 ft. 6 in.

Shot-put—John McCallum, Penn..... 49 ft. 4¼ in.

35-lb. weight—Gil Borjeson, Brown..... 58 ft. 9¼ in.

Team—Manhattan..... 40½ pts.

EASTERN BOXING CHAMPIONS, 1952

Intercollegiate Association

(At State College, Pa.)

125 lb.—Sam Marino, Penn State

132 lb.—Art Nelson, Syracuse

139 lb.—John Granger, Syracuse

147 lb.—John Albarano, Penn State

155 lb.—Carl Crews, Army

165 lb.—Jeryl Hughes, Army

178 lb.—Jim McInerney, Army

Heavyweight—George Kartalian, Syracuse

Team (Edward J. Noll Trophy)—Syracuse (24 pts.)

CONFERENCE TRACK AND FIELD CHAMPIONSHIPS, 1952

Heptagonal Games Association

OUTDOOR

(At West Point, N. Y.)

100 yd.—Bruce Hardy, Army.....	0:01.1
440—Jim Lingel, Cornell.....	0:48.2
880—Albin Rauch, Princeton.....	1:53.8
1 mile—Richard Shea, Army.....	4:13.4
2 miles—Albert Pitts, Princeton.....	9:17.2
120 hurdles—Peter McCreary, Dartmouth.....	0:14.4
220 hurdles—Meredith Gourdine, Cornell.....	0:23.9
440 relay—Cornell (Booth, Gerlough, Merz, Sebald).....	0:42.5
1 mile relay—Army (Thompson, Youree, White, Cain).....	3:17.6
Broad jump—F. Morgan Taylor, Princeton.....	24 ft. 1½ in.
High jump—Nelson Ehinger, Dartmouth.....	6 ft. 3¾ in.
Discus—Charles Emery, Penn.....	165 ft. 6½ in.
Hammer—Joe Chaddock, Yale.....	172 ft. 5¾ in.
Javelin—Bob Allison, Navy.....	225 ft. 9¼ in.
Pole vault—Joseph Perlow, Army.....	14 ft.
Shot-put—Leonard Lyons, Princeton.....	48 ft. 1 in.
Team—Army.....	50 pts.

INDOOR

(At 102d Regiment Armory, New York, and Coxo Cage, New Haven)

60 yd.—Ira Kane, Navy.....	0:06.6
600—Fred Schiereth, Columbia.....	1:12.1
1,000—Michael Stanley, Yale.....	2:15.1
1 mile—Richard Shea, Army.....	4:15.6
2 miles—Albert Pitts, Princeton.....	9:29.9
60 high hurdles—Laurence Johnson, Army.....	0:07.5
1 mile relay—Army (Thompson, Corpew, White, Johnson).....	3:25.9
2-mile relay—Yale (Garofalo, Albanese, Effinger, Stanley).....	7:58.3
Broad jump—F. Morgan Taylor, Princeton.....	23 ft. 8¾ in.
High jump—George Hippie, Yale, and Nelson Ehinger, Dartmouth.....	6 ft. 4¾ in.
Pole vault—Tie among Van Zimmerman, Penn.; Eugene Zeiner, Cornell; W. H. Elsenhart, Army; Robert Mello, Harvard.....	13 ft.
Shot-put—Arthur Gardiner, Cornell.....	50 ft. 6¾ in.
35-lb. weight—Gil Borjeson, Brown.....	57 ft. 1¼ in.
Team—Army.....	40 5/12 pts.

Pacific Coast

OUTDOOR

(At Eugene, Oregon)

100 yd.—Bob Gary, Wash. State.....	0:09.9
220—Rodney Richard, U.C.L.A.....	0:21.7
440—John Bradley, So. California.....	0:48.4
880—Jack Hutchins, Oregon.....	1:54.0
1 mile—Art Garcia, So. California.....	4:12.5
2 miles—Allen Fisher, Wash. State.....	9:24.7
120 hurdles—Jack Davis, So. Calif.....	0:14.4
220 hurdles—Jack Davis, So. Calif.....	0:23.6
1 mile relay—So. California (Stocks, Sorgen, Hadravsky, Badley).....	3:16.5
Broad jump—George Brown, U.C.L.A.....	24 ft. 9¼ in.
High jump—Emery Barnes, Oregon, and Manuel Ronquillo, So. Calif. (tie).....	6 ft. 5½ in.
Discus—Sim Iness, So. Calif.....	183 ft. 5¼ in.
Javelin—Ralph Sutton, Oregon State.....	224 ft. 2¼ in.
Pole vault—Dave Martin, Idaho.....	14 ft. 3¼ in.
Shot-put—Perry O'Neil, So. Calif.....	54 ft. 3 in.
Team—Southern California.....	62½ pts.

Southwest

OUTDOOR

(At Dallas, Texas)

100 yd.—Dean Smith, Texas.....	0:09.5
220—Charles Thomas, Texas.....	0:20.4
440—John DeWitt, Texas A. & M.....	0:49.8
880—John Garmany, Texas A. & M.....	1:59.6
1 mile—Rick Heber, Arkansas.....	4:26.8
2 miles—Lenroy Lowe, S. M. U.....	9:46.5
120 hurdles—Val Joe Walker, S. M. U.....	0:14.1
220 hurdles—Ralph Person, Texas.....	0:22.5
440 relay—Texas (Smith, Brownhill, Mayes, Thomas).....	0:41.9
1 mile relay—Texas A. & M. (Mays, Schaeffer, Stull, DeWitt).....	3:24.2
Broad jump—Bobby Ragsdale, Texas A. & M.....	22 ft. 3¾ in.
High jump—Walter Davis, Texas A. & M.....	6 ft. 10¼ in.
Discus—Darrow Hooper, Texas A. & M.....	170 ft.
Javelin—Pat Knight, S. M. U.....	194 ft. 4½ in.
Pole vault—Tie among Don Graves, Texas A. & M.; Dick Bernet and Jack Hooker, S. M. U.; Joe Runnels, Texas.....	12 ft.
Shot-put—Darrow Hooper.....	53 ft. 7¼ in.
Team—Texas A. & M.....	95½ pts.

Metropolitan (N. Y.) Association

OUTDOOR

(At Baker Field and Randalls Island)

100 yd.—Lindy Remigino, Manhattan.....	0:09.7
220—Lindy Remigino.....	0:21.9
440—Dick Malocco, N. Y. U.....	0:48.5
880—Bill Persichetty, Fordham.....	1:55.5
1 mile—Terrence Foley, Fordham.....	4:18.8
2 miles—Bill Lucas, Manhattan.....	9:31.1
120 hurdles—Bill Schertzer, Manhattan.....	0:15.7
220 hurdles—George Shaw, Columbia.....	0:24.9
1 mile relay—Fordham (O'Hare, Day, Murray, Albert).....	3:17.8
Broad jump—George Shaw.....	23 ft. 3¼ in.
High jump—Frank Gaffney, Manhattan.....	6 ft. 1½ in.
Discus—Albert Thompson, Columbia.....	144 ft. 11½ in.
Hammer—Steve Dillon, Manhattan.....	172 ft. 5¼ in.
Javelin—Jerry Gristina, Columbia.....	183 ft. 3 in.
Pole vault—Richard Lynn, N. Y. U.....	13 ft.
Shot-put—Albert Thompson.....	47 ft. 11¼ in.
Team—Manhattan.....	85½ pts.

INDOOR

(At Coxo Cage, New Haven, and 102d Regiment Armory, New York)

60 yd.—Lindy Remigino, Manhattan.....	0:06.6
600—Dick Malocco, N. Y. U.....	1:12.8
1,000—Bill Persichetty, Fordham.....	2:17.7
1 mile—Terrence Foley, Fordham.....	4:22.6
2 miles—Bill Lucas, Manhattan.....	9:27.4
60 high hurdles—Charles Pratt, Manhattan.....	0:08.0
1 mile relay—Manhattan (Ferraro, Lucas, Dixon, Carty).....	3:23.3
2-mile relay—Fordham (Brandstoettner, Anderson, Day, Tarsney).....	8:02.1
Broad jump—George Shaw, Columbia.....	23 ft. 3¾ in.
High jump—Charles Fields, C.C.N.Y., and Frank Gaffney, Manhattan (tie).....	6 ft. 3 in.
Pole vault—Richard Lynn and Charles Stevenson, N. Y. U. (tie).....	12 ft. 6 in.
Shot-put—Albert Thompson, Columbia.....	50 ft.
35-lb. weight—Steve Dillon, Manhattan.....	58 ft. 10¼ in.
Team—Manhattan.....	76 pts.

Southeastern

OUTDOOR

(At Birmingham, Ala.)

100 yd.—Charles Johnson, La. State.....	0:09.9
220—Jackie Creel, Auburn.....	0:21.2
440—Don Johnson, Auburn.....	0:48.8
880—Frank Albertson, Tennessee.....	1:52.8
1 mile—Alf Holmberg, Tennessee.....	4:16.2
2 miles—Alf Holmberg.....	9:18.1
120 hurdles—William Fickling, Auburn.....	0:14.9
220 hurdles—Jerry Simmons, Miss. State.....	0:24.6
1 mile relay—Alabama (Adams, McDonald, Richards, Bick).....	3:18.6
Broad jump—Charles Johnson.....	23 ft. 11¼ in.
High jump—Elmo Branch, Miss. State.....	6 ft. 7 in.
Discus—Jim Dillon, Auburn.....	164 ft. 6¼ in.
Javelin—Ed Baskin, Georgia Tech.....	200 ft. 9¼ in.
Pole vault—Fred Nodier, La. State, and Elmo Branch (tie).....	13 ft.
Shot-put—Carl Shieff, Alabama.....	51 ft. 6 in.
Team—Alabama.....	38 pts.

Missouri Valley

OUTDOOR

(At Stillwater, Okla.)

100 yd.—Paul Wells, Oklahoma A. & M.....	0:09.7
220—Larry McBride, Houston.....	0:21.5
440—Wes Richers, Houston.....	0:48.8
880—Billy Heard, Okla. A. & M.....	1:56.3
1 mile—Frederick Eckhoff, Okla. A. & M.....	4:20.4
2 miles—Lonnle Dunklin, Okla. A. & M.....	10:02.3
120 hurdles—Roy Ruedy, Okla. A. & M.....	0:15.5
220 hurdles—Roy Ruedy.....	0:24.4
440 relay—Houston (Jett, Armstrong, Moore, McBride).....	0:41.8
1 mile relay—Oklahoma A. & M. (Williams, Berry, Rice, Elliot).....	3:18.5
High jump—Gerald Cheek, Tulsa.....	23 ft. 7½ in.
High jump—Roscoe Vrooman, Okla. A. & M.....	6 ft. 6¾ in.
Discus—Nick Spillios, Houston.....	151 ft. 8 in.
Javelin—Wayne Kroutli, Okla. A. & M.....	191 ft. ¾ in.
Pole vault—Delbert Grassman, Okla. A. & M.....	12 ft. 7 in.
Shot-put—Nick Spillios.....	48 ft. 8¼ in.
Team—Oklahoma A. & M.....	121 pts.

Southern

(At Chapel Hill, N. C.)

100 yd.—Herman Decker, V. M. I.	0:10.1
220—Henry Poss, Duke	0:21.5
440—William Johnson, V. P. I.	0:47.9
880—Gene Brigham, North Carolina	1:54.7
1 mile—William Sawyer, No. Car. State	4:22.5
2 miles—Joe Shockley, No. Car. State	9:44.4
120 hurdles—Joel Shankle, Duke	0:14.7
220 hurdles—Joel Shankle, Duke	0:23.4
1 mile relay—V. P. I. (Hardy, Baker, Violette, Johnson)	3:19.8
Broad jump—Morty Cohen, Maryland	23 ft. 5½ in.
High jump—Ben Lankford, V. P. I.	
and Dick Lentz, Maryland (tie)	6 ft. 1½ in.
Discus—Larry Hunt, West Virginia	139 ft. 6 in.
Javelin—Donald Cochran, V. P. I.	203 ft. ¾ in.
Pole vault—Jerry Cates, Duke	13 ft.
Shot-put—Larry Hunt	49 ft. 7½ in.
Team—Maryland	57½ pts.

INDOOR

(At Chapel Hill, N. C.)

60 yd.—Henry Poss, Duke	0:06.5
440—William Johnson, V. P. I.	0:50.3
880—Al Buehler, Maryland	1:57.7
1 mile—Clyde Garrison, No. Car. State	4:21.7
2 miles—John Tibbetts, Maryland	9:52.9
70 low hurdles—John Mapp, V. M. I.	0:07.9
70 high hurdles—Tex Carter, Maryland	0:09.0
1 mile relay—Duke (Anderson, Hansen, Novak, Tate)	3:29.9
Broad jump—Francis Nichols, Duke	21 ft. 5½ in.
High jump—Dick Lentz, Maryland, and Ben Lankford, V. P. I. (tie)	6 ft. 2 in.
Pole vault—Sam Jordan, North Carolina, and Jerry Cates, Duke (tie)	12 ft. 6 in.
Shot-put—Jack Unterkofler, Maryland	46 ft. 8½ in.
Team—Maryland	37½ pts.

Big Seven

(At Norman, Okla.)

100 yd.—Thane Baker, Kansas State	0:10.0
220—Thane Baker	0:22.8
440—J. W. Mashburn, Oklahoma	0:48.3
880—Art Dalzell, Kansas	1:56.7
1 mile—Wes Santee, Kansas	4:22.4
2 miles—Warren Rouse, Oklahoma	9:42.5
120 hurdles—Hi Faubion, Kansas State	0:15.3
220 hurdles—Bob DeViney, Kansas	0:24.3
1 mile relay—Kansas State (Rowe, Caldwell, Towers, Baker)	3:24.3
Broad jump—Neville Price, Oklahoma	23 ft. 11 in.
High jump—Bob Gordon, Missouri	6 ft. 6½ in.
Discus—Jim Robertson, Iowa State	142 ft. 1½ in.
Javelin—Bill Fessler, Missouri	181 ft. 1½ in.
Pole vault—Jim Floyd, Kansas	13 ft. 5½ in.
Shot-put—Wallace Tanner, Colorado	49 ft. 7 in.
Team—Kansas	121½ pts.

INDOOR

(At Kansas City, Mo.)

60 yd.—Thane Baker, Kansas State	0:06.3
440—Thane Baker	0:50.2
880—Don Crabtree, Oklahoma	1:54.6
1 mile—Wes Santee, Kansas	4:17.8
2 miles—Herb Senper, Kansas	9:07.0
60 low hurdles—Don Bedker, Nebraska	0:06.9
60 high hurdles—Don Bedker	0:07.5
1 mile relay—Oklahoma (Lee, Coleman, McCormick, Mashburn)	3:21.4
Broad jump—Veryl Switzer, Kansas State	23 ft. 5½ in.
High jump—Richard Jones, Oklahoma	6 ft. 5 in.
Pole vault—Jim Floyd, Kansas	13 ft. 6½ in.
Shot-put—Wallace Tanner, Colorado	50 ft. 4 in.
Team—Kansas	44½ pts.

Middle Atlantic Association

(At Bethlehem, Pa.)

100 yd.—Joe Walker, La Salle	0:10.0
220—Joe Walker	0:21.8
440—John Manning, La Salle	0:50.8
880—Charles Harmon, La Salle	1:58.2
1 mile—Donald Mager, Johns Hopkins	4:27.3
2 miles—John Schafer, Lafayette	9:47.4
120 hurdles—Harmon Brown, Lafayette	0:15.7
220 hurdles—William Lauder, Lafayette	0:25.3
Broad jump—Ken Howard, Washington Coll.	22 ft. 5½ in.
High jump—Jim Webb, La Salle	6 ft. 4 in.
Discus—John Ellis, Lafayette	158 ft. 1½ in.
Javelin—Al Cantello, La Salle	187 ft. 8½ in.
Pole vault—Elwood Albert, Albright, and Michael TERNOWSKI, Lafayette	12 ft. 6½ in.
Shot-put—Donald Beil, Lehigh	49 ft. 3½ in.
Team—La Salle	62 pts.

Big Ten

OUTDOOR

(At Ann Arbor, Mich.)

100 yd.—Jim Golliday, Northwestern	0:09.5
220—Willie Williams, Illinois	0:21.7
440—Cirilo McSween, Illinois	0:48.7
880—Stacy Siders, Illinois	1:51.2
1 mile—John Ross, Michigan	4:10.7
2 miles—Richard Ferguson, Iowa	9:19.0
120 hurdles—Joel McNulty, Illinois	0:14.4
220 hurdles—Dave Martin, Indiana	0:23.3
1 mile relay—Michigan (Hickman, Barton, Konrad, Carroll)	3:16.6
Broad jump—Arthur Kurtz, Northwestern	24 ft. 3½ in.
High jump—Milton Mead, Michigan, and Ronald Mitchell, Illinois (tie)	6 ft. 5½ in.
Discus—George Holm, Minnesota	159 ft. 10½ in.
Pole vault—Jerry Welbourn, Ohio State, and Dick Coleman, Illinois (tie)	14 ft. 1½ in.
Shot-put—Roland Nilsson, Michigan	54 ft.
Team—Illinois	67½ pts.

INDOOR

(At Champaign, Ill.)

60 yd.—Jim Golliday, Northwestern	0:06.2
440—John Carroll, Michigan	0:48.8
880—Henry Cryer, Illinois	1:52.9
1 mile—John Ross, Michigan	4:09.4
2 miles—Don McEwen, Michigan	9:10.2
70 low hurdles—Willie Williams, Illinois	0:08.1
70 high hurdles—Joel McNulty, Illinois	0:08.7
1 mile relay—Iowa (Boylan, Wheeler, Ebert, Scott)	3:18.3
Broad jump—Horace Coleman, Michigan	22 ft. 11½ in.
High jump—Ronald Mitchell, Illinois	6 ft. 7½ in.
Pole vault—Dick Coleman, Illinois	14 ft. 3 in.
Shot-put—Roland Nilsson, Michigan	53 ft. 7½ in.
Team—Illinois	59½ pts.

Central Collegiate Conference

(Open meet)

(At Marquette University Stadium, Milwaukee)

100 yd.—Willie Williams, Illinois	0:09.9
220—James Ford, Drake	0:21.6
440—James Lavery, Drake	0:48.0
880—Ted Wheeler, Iowa	1:51.7
1 mile—Leonard Truex, Ohio State	4:13.2
2 miles—Richard Ferguson, Iowa	9:26.7
120 hurdles—Joel McNulty, Illinois	0:14.5
220 hurdles—Joel McNulty	0:24.4
440 relay—Illinois (Williams, Corley, McNulty, McSween)	0:41.7
1 mile relay—Illinois (Corley, Siders, Swank, McSween)	3:15.9
Broad jump—Meredith Gourdine, Cornell	23 ft. 8½ in.
High jump—J. Lewis Hall, Florida	6 ft. 7½ in.
Discus—Jim Dillon, Auburn	160 ft. 10½ in.
Javelin—Ed Baskin, Georgia Tech	202 ft. 9½ in.
Pole vault—Dick Calisch and Dick Coleman, Illinois (tie)	13 ft. 6 in.
Shot-put—Carl Shield, Alabama	50 ft. 11 in.
Team—Illinois	70 pts.

Central A. A.

OUTDOOR

(At Baltimore, Md.)

100 yd.—Arthur Bragg, Morgan State	0:09.8
220—Arthur Bragg	0:21.5
440—George Rhoden, Morgan State	0:47.1
880—Reginald Victor, No. Car. A. & T.	1:55.6
1 mile—Andrew Graham, No. Car. Coll.	4:23.8
2 miles—Leon Koss, Morgan State	10:02.0
120 hurdles—Larry Calhoun, No. Car. Coll.	0:14.9
220 hurdles—Larry Calhoun	0:24.9
1 mile relay—Morgan State (Boasmond, Morgan, Rogers, Rhoden)	3:17.4
Medley relay—Morgan State (Rhoden, LaBeach, Bragg, Thomas)	3:29.8
Broad jump—Lancelot Thompson, Morgan State	22 ft. 11½ in.
High jump—Theodore Ellis, Lincoln	6 ft. 6½ in.
Discus—Mitchell, No. Car. A. & T.	133 ft. 1½ in.
Javelin—J. Courtney, No. Car. Coll.	194 ft.
Pole vault—Tie among William Brown, Howard; Ronald Gee, Morgan State, and T. Williams, Lincoln	11 ft. 6 in.
Shot-put—Andrew Rodez, Virginia Union	48 ft. 8½ in.
Team—Morgan State	64½ pts.

INTERCOLLEGIATE CONFERENCE TEAM CHAMPIONS, 1952

BIG TEN

Baseball—Illinois and Michigan (tie)
 Basketball—Illinois
 Fencing—Illinois
 Golf—Michigan
 Gymnastics—Illinois
 Swimming—Ohio State
 Tennis—Indiana
 Track (indoor)—Illinois
 Track (outdoor)—Illinois
 Wrestling—Illinois

PACIFIC COAST

Baseball—Oregon State
 Basketball—U. C. L. A.
 Golf (Northern Division)—Oregon (dual meet) and Washington (tournament); Southern Division—Stanford (dual meet)
 Rowing—California
 Swimming (No. Div.)—Washington; So. Div.—Stanford
 Tennis (No. Div.)—Washington; So. Div.—U. C. L. A. and California (tie)
 Track—Southern California

SOUTHERN

Baseball—Duke
 Basketball—North Carolina State
 Golf—North Carolina
 Swimming—North Carolina
 Tennis—Duke
 Track (indoor)—Maryland
 Track (outdoor)—Maryland
 Wrestling—Maryland

SOUTHWEST

Baseball—Texas
 Basketball—Texas Christian
 Fencing—Texas A. & M.
 Golf—Texas
 Swimming—Texas
 Tennis—Texas
 Track—Texas A. & M.

BIG SEVEN

Baseball—Missouri
 Basketball—Kansas
 Golf—Oklahoma
 Swimming—Oklahoma
 Tennis—Oklahoma
 Track (indoor)—Kansas
 Track (outdoor)—Kansas
 Wrestling—Oklahoma

SOUTHEASTERN

Baseball—Florida
 Basketball—Kentucky
 Golf—Georgia
 Swimming—Georgia Tech
 Tennis—Tulane
 Track—Alabama

MISSOURI VALLEY

Baseball—St. Louis
 Basketball—St. Louis
 Golf—Oklahoma A. & M.
 Tennis—Houston
 Track—Oklahoma A. & M.

Thorpe 'Greatest' Athlete

In 1950 the Associated Press polled the nation's sports experts on the "greats" in various fields during the past half-century. The list of winners:

Male athlete—Jim Thorpe.

Female athlete—Mildred D. Zaharias.

Baseball player—Babe Ruth.

Football player—Jim Thorpe.

Fighter—Jack Dempsey.

Basketball player—George Mikan.

Track performer—Jesse Owens.

Golfer—Bobby Jones.

Tennis player—Bill Tilden.

Swimmer—Johnny Weissmuller.

Race horse—Man o' War.

Greatest upset—The Boston Braves' four-straight world series victory over the Philadelphia Athletics in 1914.

Most dramatic event—Dempsey-Firpo heavyweight title fight at the Polo Grounds, New York, Sept. 14, 1923.

ATHLETES OF THE YEAR

(Associated Press polls)

MALE FEMALE

1931—Pepper Martin (baseball); Helene Madison (swimming)
 1932—Gene Sarazen (golf); Mildred Didrikson (track)
 1933—Carl Hubbell (baseball); Helen Jacobs (tennis)
 1934—Dizzy Dean (baseball); Virginia Van Wie (golf)
 1935—Joe Louis (boxing); Helen Wills Moody (tennis)
 1936—Jesse Owens (track); Helen Stephens (track)
 1937—Don Budge (tennis); Katherine Rawls (swimming)
 1938—Don Budge (tennis); Patty Berg (golf)
 1939—Nile Kinnick (football); Alice Marble (tennis)
 1940—Tommy Harmon (football); Alice Marble (tennis)
 1941—Joe DiMaggio (baseball); Betty Hicks Newell (golf)
 1942—Frank Sinkwich (football); Gloria Callen (swimming)
 1943—Gunder Hagg (track); Patty Berg (golf)
 1944—Byron Nelson (golf); Ann Curtis (swimming)
 1945—Byron Nelson (golf); Mildred Didrikson Zaharias (golf)
 1946—Glenn Davis (football); Mildred D. Zaharias (golf)
 1947—Johnny Lujack (football); Mildred D. Zaharias (golf)
 1948—Lou Boudreau (baseball); Fanny Blankers-Koen (track)
 1949—Leon Hart (football); Marlene Bauer (golf)
 1950—Jim Konstanty (baseball); Mildred D. Zaharias (golf)
 1951—Dick Kazmaler (football); Maureen Connolly (tennis)

ROWING

Rowing goes back so far in history that there is no possibility of tracing it to any particular aboriginal source. The oldest rowing race still on the calendar is the "Doggett's Coat and Badge" contest among professional watermen of the Thames (England) that began in 1715. The first Oxford-Cambridge race was held at Henley in 1829. Competitive rowing in the United States began with matches between boats rowed by professional oarsmen of the New York water front. They were oarsmen who rowed the small boats that piled as ferries from Manhattan Island to Brooklyn and return, or who rowed salesmen down the harbor to meet ships arriving from Europe. Since the first salesman to meet an incoming ship had some advantage over his rivals, there was keen competition in the bidding for fast boats and the best oarsmen. This gave rise to match races for a purse or a side bet on many occasions. The first of such races was held in June, 1811, in four-oared gigs.

Amateur boat clubs sprang up in the United States between 1820 and 1830 and

seven students of Yale joined together to purchase a four-oared lap-streak gig in 1843. The first Harvard-Yale race was held Aug. 3, 1852, on Lake Winnepesaukee, N. H. The first time an American college crew went abroad was in 1869 when Harvard challenged Oxford and was defeated on the Thames. There were early college rowing races on Lake Quinsigamond, near Worcester, Mass., and on Saratoga Lake, N. Y., but the Intercollegiate Rowing Association, in 1895, settled on the Hudson, at Poughkeepsie, as the setting for the annual "Poughkeepsie Regatta." In 1950 the I.R.A. shifted its classic to Marietta, Ohio, and in 1952 it was moved to Syracuse, N. Y. The National Association of Amateur Oarsmen, organized in 1872, has conducted annual championship regattas since that time. The first rowing races were held with lap-streak gigs but shells came into general favor about a century ago. The outrigger was invented in 1830 by Clasper, an Englishman. Yale used the sliding seat in 1870.

Rowing Statistics

Source: From *American Rowing*, Copyright by Robert F. Kelley; courtesy of G. P. Putnam's Sons.

Yale-Harvard Varsity Race Record

Rowed at Centre Harbor, N. H., in 1852; Springfield, Mass., in 1855, 1872-73, 1876-77; Worcester, Mass., 1859 to 1870; Saratoga Lake, N. Y., 1874-75; New London, Conn., 1878 to 1895, 1898 to 1916, 1919 to 1941, and since 1947; triangular race at Poughkeepsie, N. Y., in 1897 with Cornell victor in 20:34; Derby, Conn., in 1918, 1942, and Boston, Mass., in 1946. Course was 2 miles in 1852; 3 miles from 1855 to 1879, and 4 miles thereafter.

Year	Winner	Time	Year	Winner	Time	Year	Winner	Time
1852.....	Harvard.....	1	1891.....	Harvard.....	21:23	1922.....	Yale.....	21:53
1855.....	Harvard.....	22:00	1892.....	Yale.....	20:48	1923.....	Yale.....	22:10
1859.....	Harvard.....	19:18	1893.....	Yale.....	25:01½	1924.....	Yale.....	21:58½
1860.....	Harvard.....	18:53	1894.....	Yale.....	23:45½	1925.....	Yale.....	20:26
1864.....	Yale.....	19:01	1895.....	Yale.....	21:30	1926.....	Yale.....	20:14½
1865.....	Yale.....	18:42½	1897.....	Yale.....	20:44	1927.....	Harvard.....	22:35½
1866.....	Harvard.....	18:43½	1898.....	Yale.....	24:02	1928.....	Yale.....	20:21½
1867.....	Harvard.....	18:12½	1899.....	Harvard.....	20:52½	1929.....	Yale.....	21:20
1868.....	Harvard.....	17:48½	1900.....	Yale.....	21:12½	1930.....	Yale.....	20:09½
1869.....	Harvard.....	18:02	1901.....	Yale.....	23:37	1931.....	Harvard.....	22:21
1870.....	Harvard.....	20:30½	1902.....	Yale.....	20:20	1932.....	Harvard.....	21:29
1872.....	Harvard.....	16:57	1903.....	Yale.....	20:19½	1933.....	Harvard.....	22:46½
1873.....	Yale.....	16:59	1904.....	Yale.....	21:40½	1934.....	Yale.....	19:51½
1874½.....	Harvard.....	16:56	1905.....	Yale.....	22:33½	1935.....	Yale.....	26:19
1875.....	Harvard.....	17:05	1906.....	Harvard.....	23:02	1936.....	Harvard.....	20:19
1876.....	Yale.....	22:02	1907.....	Yale.....	21:10	1937.....	Harvard.....	20:02
1877.....	Harvard.....	24:36	1908½.....	Harvard.....	24:10	1938.....	Harvard.....	20:20
1878.....	Harvard.....	20:44¾	1909.....	Harvard.....	21:50	1939.....	Harvard.....	20:48¾
1879.....	Harvard.....	22:15	1910.....	Harvard.....	20:46½	1940.....	Harvard.....	21:38
1880.....	Yale.....	24:27	1911.....	Harvard.....	22:44	1941.....	Harvard.....	20:40
1881.....	Yale.....	22:13	1912.....	Harvard.....	21:43½	1942½.....	Harvard.....	16:09¾
1882.....	Harvard.....	20:47½	1913.....	Harvard.....	21:42	1943-45.....	No races	
1883.....	Harvard.....	25:46½	1914.....	Yale.....	21:16	1946½.....	Harvard.....	9:18
1884.....	Yale.....	20:31	1915.....	Yale.....	20:52	1947.....	Harvard.....	20:40
1885.....	Harvard.....	25:15½	1916.....	Harvard.....	20:02	1948½.....	Harvard.....	19:21½
1886.....	Yale.....	20:42	1917.....	No race		1949½.....	Yale.....	19:52½
1887.....	Yale.....	22:56	1918½.....	Harvard.....	10:58	1950.....	Harvard.....	21:36½
1888.....	Yale.....	20:10	1919½.....	Yale.....	21:42½	1951.....	Harvard.....	21:26
1889.....	Yale.....	21:30	1920.....	Harvard.....	23:11	1952.....	Yale.....	22:49
1890.....	Yale.....	21:29	1921.....	Yale.....	20:41			

¹ Harvard won by 3 to 4 lengths. ² Yale ran into Harvard at turn and was disqualified. ³ Yale did not finish, being disabled in collision. ⁴ Yale stroke taken from shell near 3-mile mark. ⁵ Race was informal; rowed at 2 miles on Housatonic. ⁶ Course was 110 feet less than 4 miles. ⁷ Rowed at 2 miles. ⁸ Rowed at 1¾ miles. ⁹ Both crews broke downstream record. ¹⁰ Both crews broke upstream record.

POUGHKEEPSIE REGATTA RECORD

(Varsity eight-oared shells—4 miles)

Rowed on Saratoga Lake (3 miles) 1898. Rowed on Lake Cayuga, Ithaca, N. Y. (2 miles) 1920. Racing suspended in 1917, 1918, 1919, 1933, and 1942 to 1946, inclusive. Rowed at 3 miles from 1921 to 1924, inclusive, and since 1947.

Year	Time	First	Second	Third	Fourth	Fifth	Sixth
1895	21:25	Columbia.....	Cornell.....				
1896	19:59	Cornell.....	Harvard.....	Pennsylvania....	Columbia.....		
1897	20:47 4/5	Cornell.....	Columbia.....				
1898	15:51 1/2	Pennsylvania....	Cornell.....	Wisconsin.....	Columbia.....		
1899	20:4	Pennsylvania....	Wisconsin.....	Cornell.....	Columbia.....		
1900	19:44 3/5	Pennsylvania....	Wisconsin.....	Cornell.....	Columbia.....	Georgetown.....	
1901	18:53 1/5	Cornell.....	Columbia.....	Wisconsin.....	Georgetown.....	Syracuse.....	Pennsylvania
1902	19:5 3/5	Cornell.....	Wisconsin.....	Columbia.....	Pennsylvania....	Syracuse.....	Georgetown
1903	18:57	Cornell.....	Georgetown.....	Wisconsin.....	Pennsylvania....	Syracuse.....	Columbia
1904	20:22 3/5	Syracuse.....	Cornell.....	Pennsylvania....	Columbia.....	Georgetown.....	Wisconsin
1905	20:29	Cornell.....	Syracuse.....	Georgetown.....	Columbia.....	Pennsylvania....	Wisconsin
1906	19:36 4/5	Cornell.....	Pennsylvania....	Syracuse.....	Wisconsin.....	Columbia.....	Georgetown
1907	20:2 2/5	Cornell.....	Columbia.....	Navy.....	Pennsylvania....	Wisconsin.....	Georgetown
1908	19:24 1/5	Syracuse.....	Columbia.....	Cornell.....	Pennsylvania....	Wisconsin.....	
1909	19:2	Cornell.....	Columbia.....	Syracuse.....	Wisconsin.....	Pennsylvania....	
1910	20:42 1/5	Cornell.....	Pennsylvania....	Columbia.....	Syracuse.....	Wisconsin.....	
1911	20:10 4/5	Cornell.....	Columbia.....	Pennsylvania....	Wisconsin.....	Syracuse.....	
1912	19:31 2/5	Cornell.....	Wisconsin.....	Columbia.....	Syracuse.....	Pennsylvania....	Stanford
1913	19:28 3/5	Syracuse.....	Cornell.....	Washington.....	Wisconsin.....	Columbia.....	Pennsylvania
1914	19:37 4/5	Columbia.....	Pennsylvania....	Cornell.....	Syracuse.....	Washington.....	Wisconsin
1915	19:36 3/5	Cornell.....	Stanford.....	Syracuse.....	Columbia.....	Pennsylvania....	
1916	20:15 2/5	Syracuse.....	Cornell.....	Columbia.....	Pennsylvania....		
1920	11:2 3/5	Syracuse.....	Cornell.....	Columbia.....	Pennsylvania....		
1921	14:7	Navy.....	California.....	Cornell.....	Pennsylvania....	Syracuse.....	Columbia
1922*	13:33 3/5	Navy.....	Washington.....	Syracuse.....	Cornell.....	Columbia.....	Pennsylvania
1923	14:3 1/5	Washington.....	Navy.....	Columbia.....	Syracuse.....	Cornell.....	Pennsylvania
1924	15:2	Washington.....	Wisconsin.....	Cornell.....	Pennsylvania....	Syracuse.....	Columbia
1925	19:24 4/5	Navy.....	Washington.....	Wisconsin.....	Pennsylvania....	Cornell.....	Syracuse
1926	19:28 3/5	Washington.....	Navy.....	Syracuse.....	Pennsylvania....	Columbia.....	California
1927	20:57	Columbia.....	Washington.....	California.....	Navy.....	Cornell.....	Syracuse
1928	18:35 4/5	California.....	Columbia.....	Washington.....	Cornell.....	Navy.....	Syracuse
1929	22:58	Columbia.....	Washington.....	Pennsylvania....	Navy.....	Wisconsin.....	
1930	21:42	Cornell.....	Syracuse.....	M. I. T.....	California.....	Columbia.....	Washington
1931	18:54 1/5	Navy.....	Cornell.....	Washington.....	California.....	Syracuse.....	Pennsylvania
1932	19:55	California.....	Cornell.....	Washington.....	Navy.....	Syracuse.....	Columbia
1934	19:44	California.....	Washington.....	Navy.....	Cornell.....	Pennsylvania....	Syracuse
1935	18:52	California.....	Cornell.....	Washington.....	Navy.....	Syracuse.....	Pennsylvania
1936	19:9 3/5	Washington.....	California.....	Navy.....	Columbia.....	Cornell.....	Pennsylvania
1937	18:33 3/5	Washington.....	Navy.....	Cornell.....	Syracuse.....	California.....	Columbia
1938	18:19	Navy.....	California.....	Washington.....	Columbia.....	Wisconsin.....	Cornell
1939†	18:12 3/5	California.....	Washington.....	Navy.....	Cornell.....	Syracuse.....	Wisconsin
1940	22:42	Washington.....	Cornell.....	Syracuse.....	Navy.....	California.....	Columbia
1941	18:53 3/10	Washington.....	California.....	Cornell.....	Syracuse.....	Princeton.....	Wisconsin
1947	13:59 1/5	Navy.....	Cornell.....	Washington.....	California.....	Princeton.....	Syracuse
1948	14:06 2/5	Washington.....	California.....	Navy.....	Cornell.....	M. I. T.....	Princeton
1949	14:42 3/5	California.....	Washington.....	Cornell.....	Navy.....	Princeton.....	Pennsylvania

Seventh	Eighth	Tenth	Twelfth
1925—Columbia	1926—Cornell	1947—Rutgers	1949—Rutgers
1926—Wisconsin	1930—Wisconsin	1948—Columbia	
1927—Pennsylvania	1931—Wisconsin	1949—Stanford	
1928—Pennsylvania	1932—M. I. T.		Swamped
1930—Pennsylvania	1940—Princeton		1895—Pennsylvania
1931—Columbia	1941—M. I. T.		1897—Pennsylvania
1932—Pennsylvania	1947—M. I. T.	Eleventh	1907—Syracuse
1934—Columbia	1948—Wisconsin	1947—Columbia	1929—California
1935—Columbia	1949—Columbia	1948—Rutgers	1929—Cornell
1936—Syracuse		1949—M. I. T.	1930—Navy
1937—Wisconsin			
1938—Syracuse	Ninth		
1939—Columbia	1931—M. I. T.		
1940—Wisconsin	1941—Columbia		
1941—Rutgers	1947—Pennsylvania		
1947—Wisconsin	1948—Syracuse		
1948—Pennsylvania	1949—Syracuse		
1949—Wisconsin			

MARIETTA REGATTA

1950—Varsity (2 miles)—1, Washington (8:07.5); 2, California; 3, Wisconsin; 4, Stanford; 5, M. I. T.; 6, Columbia; 7, Cornell; 8, Pennsylvania; 9, Princeton; 10, Syracuse; 11, Rutgers; 12, Navy.

1951 (JUNE 16)

Varsity (2 miles)—1, Wisconsin (7:50.5); 2, Washington; 3, Princeton; 4, California; 5, Pennsylvania; 6, M. I. T.; 7, Stanford; 8, Cornell; 9, Syracuse; 10, Rutgers; 11, Princeton; 12, Navy.

MARIETTA REGATTA

1950—Varsity (2 miles)—1, Washington (8:07.5); 2, California; 3, Wisconsin; 4, Stanford; 5, M. I. T.; 6, Columbia; 7, Cornell; 8, Pennsylvania; 9, Princeton; 10, Syracuse; 11, Rutgers; 12, Navy.

1951 (JUNE 16)

Varsity (2 miles)—1, Wisconsin (7:50.5); 2, Washington; 3, Princeton; 4, California; 5, Pennsylvania; 6, M. I. T.; 7, Stanford; 8, Cornell; 9, Syracuse; 10, Boston U.; 11, Columbia; 12, Navy.

* Record for three miles. † Record for four miles.

OTHER ROWING CHAMPIONS, 1952

Source: C. Leverich Brett, Editor, National Association of Amateur Oarsmen Year Book and N. A. A. O. Rowing News

Intercollegiate

Date	Regatta	Winner	Where held	Miles	Time
Mar. 29	Oxford-Cambridge	Oxford	London, Eng.	4 $\frac{1}{4}$	20:23
April 19	Childs Cup	Pennsylvania	Philadelphia	1 $\frac{1}{2}$	6:16.5
April 26	Blackwell Cup	Pennsylvania	New York	1 $\frac{1}{2}$	7:30.6
May 3	Compton Cup	Harvard	Princeton, N. J.	1 $\frac{1}{4}$	9:05.8
May 10	Adams Cup	Navy	Cambridge, Mass.	1 $\frac{1}{4}$	8:51.4
May 10	Carnegie Cup	Princeton	Princeton, N. J.	1 $\frac{1}{4}$	9:08
May 10	Dad Vail Assn.	La Salle (Phila.)	Boston	1 $\frac{1}{2}$	7:05
May 17	Eastern Assn.	Navy	Princeton, N. J.	2,000 m.	6:03.7
May 17	Pacific Coast	California	Oakland, Calif.	3	14:48.3
May 24	Western sprint	California	Newport Harbor, Calif.	2,000 m.	6:48.6
June 7	California-Stanford	California	Oakland, Calif.	3	15:29
June 14	Wisconsin-California	Wisconsin	Madison, Wis.	1 $\frac{1}{2}$	9:03.5

HARVARD-YALE

June 20	Junior varsity	Yale	New London, Conn.	2	11:05.2
June 20	Freshman	Harvard	New London	2	11:33.4

INTERCOLLEGIATE ROWING ASSOCIATION

June 21	Varsity	Navy	Syracuse, N. Y.	3	15:08.1
June 21	Junior varsity	Navy	Syracuse, N. Y.	3	15:37.3
June 21	Freshman	Navy	Syracuse, N. Y.	2	10:16.9

150 POUNDS

May 3	Goldtnwait Cup	Harvard	Princeton, N. J.	1 $\frac{1}{2}$	7:09
May 10	Eastern Assn.*	Pennsylvania	Princeton, N. J.	1 $\frac{1}{2}$	6:57.2
May 17	Wood-Hammond Cup	Pennsylvania	Princeton, N. J.	1 $\frac{1}{2}$	6:24.4

* Wright Cup.

United States Championships

(At Worcester, Mass., and Philadelphia)

*Single sculls—John B. Kelly Jr., Philadelphia	7:21.8
Assn. single sculls—Rudy Jezek, New York A. C.	8:57.2
$\frac{1}{4}$ -mile single sculls—Larry Kelly, Fairmount R. A., Philadelphia	1:24.6
*Double sculls—Pat Costello-Walter Hoover, Jr., Detroit Boat Club	6:51.4
Quadruple sculls—Fairmount R. A.	6:56.8
*Pair-oared snell without coxswain—Charles Logg, Jr.—Tom Price, Rutgers	7:08.2
*Pair-oared shell with coxswain—Duval Hecht and Jim Fifer (Jim Briggs, cox.), Stanford University	7:39.6
*4-oared snell without coxswain—U. S. Naval Academy	6:34.1
*4-oared snell with coxswain—Univ. of Washington	6:46.2
*8-oared snell—U. S. Naval Academy	5:57.7
Intermediate 8-oared snell—Old Dominion B. C., Alexandria, Va.	6:38.4
145-lb. single sculls—Rudy Jezek	9:11
145-lb. $\frac{1}{4}$ -mile single sculls—Rudy Jezek	1:23.6
145-lb. double sculls—Dick Mahan—John Kaufmann, Vesper B. C., Philadelphia	7:54
145-lb. quadruple sculls—Vesper B. C.	7:37.2
145-lb. 4-oared snell with coxswain—Detroit B. C.	8:02.2
145-lb. 8-oared shell—West Side R. C., Buffalo	7:15
Team (Barnes Trophy)—New York A. C.†	78 pts.

* Also final Olympic tryout at 2,000 meters; other events at $\frac{1}{4}$ miles except quarter-mile races. † The U. S. Naval Academy also scored 78 points, but the N. Y. A. C. was awarded the trophy on first places, 3 to 2.

British Henley

Diamond Sculls—Mervyn Wood, Australia
Grand Challenge Cup—Leander R. O., England

Thames Challenge Cup—University of Pennsylvania's 150-pound varsity

1952 I. R. A. REGATTA

(At Syracuse, N. Y., June 21)

Varsity (3 miles)—1, Navy (15:08.1); 2, Princeton; 3, Cornell; 4, Wisconsin; 5, California; 6, Columbia; 7, Washington; 8, Stanford; 9, Pennsylvania; 10, M. I. T.; 11, Syracuse.
Junior Varsity (3 miles)—1, Navy (15:37.3); 2, Washington; 3, California; 4, Pennsylvania; 5, Cornell; 6, Princeton; 7, Columbia; 8, Syracuse.
Freshman (2 miles)—1, Navy (10:16.9); 2, Cornell; 3, Princeton; 4, Syracuse; 5, Pennsylvania; 6, Columbia; 7, M. I. T.; 8, Wisconsin.

Royal Canadian Henley*

(At Port Dalhousie, Ontario, July 23-26)

Championship singles—Joseph Angyal, New York A. C. 7:38
Assn. singles—Bob Platt, Don R. C., Toronto 7:31
Open $\frac{1}{4}$ -mile dash—Gabby Beaudry, Lachine (Quebec) R. C. 1:20.1
Sr. doubles—Jack Charlton—Bob Platt, Don R. C. 7:35
Sr. fours with coxswain—Detroit Boat Club 6:50
Sr. pair-oared shells—J. Hewson, R. Mazierski, West Side R. C., Buffalo (rowover) 6:27.2
Sr. eights—West Side Rowing Club 7:15
Sr. 155-lb. fours—West Side R. C. 6:37
Sr. 145-lb. singles—Rudy Jezek, New York A. C. 8:04.2
Sr. 145-lb. doubles—Dick Mahan—John Kaufmann, Vesper B. C., Philadelphia 7:15
Sr. 145-lb. fours—Detroit Boat Club 7:10
Sr. 145-lb. eights—Toronto Argonauts 7:06.3
Team—West Side R. C., Buffalo 392 pts.

* The Henley distance is $1\frac{1}{2}$ miles.

Frank Sedgman of Australia and Doris Hart of Coral Gables, Fla., retained their mixed doubles crown in the 1952 Wimbledon tennis tournament.

SKIING

SKIS were devised for utility, to aid those who had to travel over snow. The Norwegians, Swedes, Lapps and other inhabitants of northern lands used skis for many centuries before skiing became a sport. Emigrants from these countries brought skis to the United States with them. The first skier of record in the United States was a mailman by the name of "Snowshoe" Thomson, born and raised in Telemarken, Norway, who came to the United States and, beginning in 1850, used

skis through twenty successive winters in carrying mail from northern California to Carson Valley, Nevada.

Ski clubs sprang up about sixty years ago where there were Norwegian and Swedish settlers in Wisconsin and Minnesota and ski contests were held in that territory in 1886. On Feb. 21, 1904, at Ishpeming, Mich., a small group of skiers organized the National Ski Association that, with the rapid growth of the sport, now has more than 450 member clubs.

1952 CHAMPIONS

Source: Frank Elkins, *The New York Times*.

North American

(At Banff, Alberta)

Downhill—Bob Dawson, Banff, Alberta..... 1:54.8
Slalom—Otto Von Allman, Sun Valley, Idaho 1:54.4
Combined—Otto Von Allman..... 159.79 pts.
Jumping—Jack Roccofort, Vancouver, B. C..... 217.1 pts.
Cross-country—Clarence Servold, Camrose, Alberta..... 1:28:46
Combined—Fritz Pedersen, Seattle..... 184 pts.

United States

Jumping (open)—Merrill Barber, Brattleboro (Vt.) O. C.
Jumping (closed)—Clarence Hill, Ishpeming (Mich.) S. C.
Cross-country (open-closed)—Silas Dunklee, Sun Valley S. C.
Combined—Corey Engen, Payette Lakes (Idaho) S. C.
Downhill (open)—Ernie McCulloch, Mont Tremblant, P. O.
Downhill (closed)—Dick Buek, Sun Valley S. C.
Slalom (open-closed)—Jack Reddish, Sun Valley S. C.
Combined (open-closed)—Jack Reddish
Giant slalom—Gale Spence, Aspen, Colo.
Jumping (senior)—Howard Jansen, Norge S. C., Chicago

WOMEN

Downhill—Mrs. Andrea Mead Lawrence, Pico S. C., Rutland, Vt.
Slalom—Mrs. Andrea M. Lawrence
Combined—Mrs. Andrea M. Lawrence
Giant slalom—Mrs. Rhona Wurtele Gillis, Palo Alto, Calif.

Awards

Paul Bietila Trophy (best American-born ski jumper at nationals)—Merrill Barber
Julius P. Blegen Memorial Plaque and Medal (outstanding service to U. S. skiing over the years)—Felix Koziol, Salt Lake City
American Ski Trophy (outstanding contribution to U. S. skiing during the year)—Alfred D. Lindley (posthumous award)
Beck International Trophy (outstanding record in international competition)—Mrs. Andrea Mead Lawrence

WRESTLING, 1952

National A. A. U. Championships

(At Ithaca, N. Y., April 3-5)

114.5 lb.—Sidney Nodland, Long Island Grapplers
 125.5 lb.—Jack Blubaugh, Armed Forces
 136.5 lb.—Josiah Henson, Armed Forces
 147.5 lb.—Newt Copple, Champaign, Ill.
 160.5 lb.—James La Rock, New York A. C.
 174 lb.—Shuford Swift, Armed Forces
 191 lb.—Henry Wittenberg, Police Sports Assn., New York
Heavyweight—Lieut. Richard Clark, Rome (N. Y.) Air Base
Team—Armed Forces (20 points)

(For Olympic, National Collegiate A. A., and Eastern Intercollegiate Association champions see index.)

Long Jumps (Official American)

Year	Made by and place	Distance, in feet
1905	Gustave Bye, Red Wing, Minn.....	106
1908	John Evenson, Ishpeming, Mich.....	122
1910	August Nordby, Ishpeming, Mich.....	140
1913	Lars Haugen, Steamboat Springs, Colo.....	185
1917	Henry Hall, Steamboat Springs, Colo.....	203
1919	Lars Haugen, Steamboat Springs, Colo.....	214
1932	Hans Beck, Lake Placid, N. Y.....	235
1934	John Elvrum, Big Pines, Calif.....	240
1937	Alf Engen, Salt Lake City, Utah.....	242
1939	Alf Engen, Big Pines, Calif.....	251
1939	Bob Roecker, Iron Mountain, Mich.....	257
1941	Alf Engen, Iron Mountain, Mich.....	267
1941	Torger Tøkle, Leavenworth, Wash.....	273
1941	Torger Tøkle, Olympian Hill, Hyak, Wash.....	288
1942	Torger Tøkle, Iron Mountain, Mich.....	289
1949	Joe Perrault, Iron Mountain, Mich.....	297
1950	Gordon Wren, Steamboat Springs, Colo.....	297
1950	Billy Olson, Iron Mountain, Mich.....	297
1951	Ansten Samuelstuen, Steamboat Springs....	316

Finn Sets Jumping Record

Tauno Luirio of Finland set a world long-jump record on skis when he soared 456 feet at Oberstdorf, Germany, on March 2, 1951. This mark is not recognized by the Federation Internationale de Ski, the sport's ruling body, because it was made on a hill more than 80 meters long.

WATER SKIING, 1952

Source: American Water Ski Association

NATIONAL OPEN CHAMPIONSHIPS

(At Minocqua, Wis., Aug. 15-17)

	Total points
Men —Emilio Zamaudio, Cuernavaca, Mexico.....	1205
Women —Marguerite Williams, Holland, Mich. Veterans' (over 35)—Bruce Parker, Amityville, N. Y.....	1208
Junior girls —Laurie Ann Hohl, Holland, Mich.....	1156
Junior boys —Joe Mueller, McQueeney, Texas	1256
Mixed doubles —Bruce Parker-Evelyn Wolford, Amityville, N. Y.....	1400

Water Ski Mark to Cozzens

Bob Cozzens of Cypress Gardens, Fla., set a world jumping record in water skiing when he leaped 87 feet in the Dixie Tournament at Cypress Gardens in April, 1952. The previous mark was 80 feet, set by Jack McGuire of Winter Haven, Fla., in the 1950 United States championships at Seattle.

BOWLING

THE GAME OF bowling that is the favorite sport of millions of "keglers" in the United States is an indoor development of the more ancient outdoor game that survives as lawn bowling. The outdoor game is prehistoric in origin and probably goes back to Primitive Man and round stones that were rolled at some target. It is believed that a game something like nine-pins was popular among the Dutch, Swiss and Germans as long ago as A.D. 1200 at which time the game was played outdoors with an alley consisting of a single plank 12 to 18 inches wide along which was rolled a ball toward three rows of three pins each placed at the far end of the alley. When the first indoor alleys were built and how the game was modified from time to time are matters of dispute. Much of the confusion arises from a lack of certainty as to which game is meant, "bowls" or "bowling", one with a "jack" and the other with "pins", in historical passages.

It is supposed that the early settlers of New Amsterdam (New York City) being Dutch, they brought their two bowling games with them. About a century ago the game of nine-pins was flourishing in the United States but so corrupted by gambling on matches that it was barred by law in New York and Connecticut. Since the law specifically barred "nine-pins", it was eventually evaded by adding another pin and thus legally making it a new game. The genius who thought up that simple method of outwitting the law and putting a popular game in motion once more remained modestly anonymous. With the increase in the number of pins, the old diamond formation of nine-pins was abandoned for the triangle set-up of ten-pins that remains the rule to this day. Various organizations were formed to make rules for bowling and supervise competition in the United States but none was successful until the American Bowling Congress, organized Sept. 9, 1895, became the ruling body.

Bowling Statistics

Source: American Bowling Congress.

American Bowling Congress Tournament Records

Type of record	Holder and home city	Score	Year
High team total.....	Birk Bros., Chicago.....	3234	1938
High team game.....	Tea Shop, Milwaukee.....	1186	1927
High doubles total.....	Steve Nagy-John Klares, Cleveland.....	1453	1952
High doubles game.....	J. Gworek—H. Kmidowski, Buffalo.....	544	1946
High singles total.....	Lee Jougard, Detroit.....	775	1951
High all events total.....	Max Stein, Belleville, Ill.....	2070	1937
High 3 games in any event.....	Lee Jougard, Detroit.....	775	1951

AMERICAN BOWLING CONGRESS CHAMPIONS

Year	Singles	Score	Doubles	Score
1930	Larry Shotwell, Covington, Ky.....	774	J. Devine—G. Heup, Beloit, Mich.....	1339
1931	Walter Lachowski, Erie, Pa.....	712	E. Rafferty—C. Reilly, Philadelphia, Pa.....	1316
1932	Otto Nitschke, Cleveland, Ohio.....	731	F. Benkovic—C. Daw, Milwaukee, Wis.....	1358
1933	Earl Hewitt, Erie, Pa.....	724	G. Zunker—F. Benkovic, Milwaukee, Wis.....	1415
1934	Jerry Vidro, Grand Rapids, Mich.....	721	G. Rudolph—J. Ryan, Waukegan, Ill.....	1321
1935	Don Brokaw, Canton, Ohio.....	733	C. Summerix—H. Souers, Akron, Ohio.....	1348
1936	Charles Warren, Springfield, Ill.....	735	A. Slanina—M. Straka, Chicago, Ill.....	1347
1937	Gene Gagliardi, Mt. Vernon, N. Y.....	749	V. Gibbs, Kansas City, Mo.—N. Burton, Dallas, Texas	1359
1938	Knute Anderson, Moline, Ill.....	746	D. Johnson—F. Snyder, Indianapolis, Ind.....	1337
1939	Jim Danek, Forest Park, Ill.....	730	P. Icuss—M. Fowler, Steubenville, Ohio.....	1405
1940	Ray Brown, Terre Haute, Ind.....	742	H. Freitag—J. Sinke, Chicago, Ill.....	1346
1941	Fred Ruff, Belleville, Ill.....	745	W. Lee—R. Farness, Madison, Wis.....	1346
1942	John Stanley, Cleveland, Ohio.....	756	E. Nowicki—G. Baier, Milwaukee, Wis.....	1377
1946	Leo Rollick, Los Angeles, Calif.....	737	J. Gworek—H. Kmidowski, Buffalo, N. Y.....	1366
1947	Junie McMahon, Chicago.....	740	Ed Doerr, Jr.—Len Springmeyer, St. Louis.....	1350
1948	Lincoln Protich, Akron, Ohio.....	721	J. Towns—W. Sweeney, Chicago.....	1361
1949	Bernard Rusche, St. Bernard, Ohio.....	716	D. Van Boxel, Green Bay—E. Bernhardt, Sturgeon Bay	1332
1950	Everett Leins, Aurora, Ill.....	757	W. Ebosh—E. Linsz, Cleveland.....	1325
1951	Lee Jougard, Detroit, Mich.....	775	Bob Benson—Ed Marshall, Lansing, Mich.....	1334
1952	Al Sharkey, Chicago.....	758	Steve Nagy-John Klares, Cleveland.....	1453

American Bowling Congress Champions (cont.)

Year	All-events	Score	Team	Score
1930	George Morrison, Chicago, Ill.	1985	Graff & Son, Kalamazoo, Mich.	3100
1931	Mike Mauser, Youngstown, Ohio	1966	S & L Motor, Chicago, Ill.	3013
1932	Hugh Stewart, Cincinnati, Ohio	1980	Jefferson Clothiers, Dayton, Ohio	3108
1933	Gil Zunker, Milwaukee, Wis.	2060	Flag Opticians, Covington, Ky.	3021
1934	Walt Reppenhagen, Detroit, Mich.	1972	Strohs, Detroit, Mich.	3089
1935	Ora Mayer, San Francisco, Calif.	2022	Wolfe Tire Service, Niagara Falls, N. Y.	3029
1936	John Murphy, Indianapolis, Ind.	2006	Falls City Hi-Bru, Indianapolis, Ind.	3089
1937	Max Stein, Belleville, Ill.	2070	Krakov Furniture, Detroit, Mich.	3118
1938	Don Beatty, Jackson, Mich.	1978	Birk Bros., Chicago, Ill.	3234
1939	Joe Wilman, Chicago, Ill.	2028	Fife Electric, Detroit, Mich.	3151
1940	Fred Fisher, Buffalo, N. Y.	2001	Monarch Beer, Chicago, Ill.	3047
1941	Harold Kelly, South Bend, Ind.	2013	Vogel Bros., Forest Park, Ill.	3065
1942	Stan Moskal, Saginaw, Mich.	1973	Budwelsler, Chicago, Ill.	3131
1946	Joe Wilman, Chicago, Ill.	2054	Lio-da-mar Bowl, Santa Monica, Calif.	3023
1947	Junie McMahon, Chicago	1965	Eddie and Earl Linsz, Cleveland, Ohio	3032
1948	Ned Day, West Allis, Wis.	1979	Washington Shirts, Chicago	3007
1949	John Small, Chicago	1941	Jimmie Smith's, South Bend, Ind.	3027
1950	Frank Santore, Long Island City, N. Y.	1981	Pepsi-Cola, Detroit	2952
1951	Tony Lindeman, Detroit	2005	C. B. O'Malley Oldsmobile, Chicago	3070
1952	Steve Nagy, Cleveland, Ohio	2065	E & B Beer, Detroit, Mich.	3115

WOMAN'S INTERNATIONAL BOWLING CONGRESS CHAMPIONS

Source: Emma Phaler, Secretary, Woman's International Bowling Congress, Inc.

Year	Singles	Score	Doubles	Score
1931	Mrs. Myrtle Schulte, St. Louis	650	Z. Baker—G. Pomeroy, Detroit	1145
1932	Audrey McVay, Kansas City, Mo.	668	M. Frank—E. Kirg, Chicago	1218
1933	Mrs. Sally Twyford, Aurora, Ill.	628	V. Peters—M. Kite, Syracuse, N. Y.	1135
1934	Marie Clemensen, Chicago	712	F. Trettin—D. McQuade, Chicago	1190
1935	Marie Warmbier, Chicago	652	E. Haufler—B. Simon, San Antonio	1219
1936	Mrs. Ella Burmeister, Madison, Wis.	612	Mrs. A. Lindermann—Mrs. L. Baldy, Milwaukee	1116
1937	Mrs. Anna Gottstine, Buffalo	647	L. Franke—G. Weber, Fort Wayne	1230
1938	Mrs. Rose Warner, Waukegan, Ill.	622	F. Probert—E. Sablatnik, St. Louis	1215
1939	Helen Hengstler, Detroit	626	C. Powers—B. Reus, Grand Rapids	1130
1940	Mrs. Sally Twyford, Aurora, Ill.	626	T. Morris—D. Burmeister Miller, Chicago	1181
1941	Nancy Huff, Los Angeles	662	J. Pittinger—M. J. Hogan, Los Angeles	1155
1942	Tillie Taylor, Newark, N. J.	659	S. Hartrick—C. Allen, Detroit	1204
1946	Val Mikiel, Detroit	682	V. Focazio—P. Dusher, Niagara Falls, N. Y.	1251
1947	Agnes Junker, Indianapolis, Ind.	650	Candice Miller—E. Beard, Ft. Wayne, Ind.	1245
1948	Shirlee Wernecke, Chicago	696	M. Cass, Alhambra—M. Mathews, Long Beach, Calif.	1188
1949	Clara Mataya, St. Louis	658	Ann Elyasevich—Estelle Svoboda, Chicago	1229
1950	Cleo Stalkamp, Newport, Ky.	669	Shirley Gantenbein—Flo Schick, Dallas	1216
1951	Ida Simpson, Buffalo, N. Y.	639	Esther Cook—Alma Denini, Seattle	1179
1952	Lorene Craig, Kansas City, Mo.	672	Lorraine Quam—Martha Hoffman, Madison, Wis.	1206

Year	All-events	Score	Team	Score
1931	Mrs. M. Schulte, St. Louis	1742	Alberti Jewelers, Chicago	2748
1932	Marie Warmbier, Chicago	1807	Martin Breit Realtors, St. Louis	2667
1933	Mrs. Sally Twyford, Aurora, Ill.	1765	Alberti Jewelers, Chicago	2864
1934	Mrs. Esther Ryan, Milwaukee	1763	Tommy Dolls Five, Cincinnati	2616
1935	Marie Warmbier, Chicago	1911	Alberti Jewelers, Chicago	2765
1936	Mrs. Ella Burmeister, Madison, Wis.	1683	Easty Five, Cleveland	2617
1937	Mrs. Louise Stockdale, Detroit	1761	The Heil Uniform Heat, Milwaukee	2685
1938	Dorothy Burmeister, Chicago	1843	The Heil Uniform Heat, Milwaukee	2706
1939	Ruth Troy, Dayton, Ohio	1724	Kornitz Pure Oil, Milwaukee	2618
1940	Mrs. Tess Morris, Chicago	1777	Logan Square Buicks, Chicago	2689
1941	Mrs. Sally Twyford, Aurora, Ill.	1799	Rovick Bowling Shoes, Chicago	2661
1942	Nina Van Camp, Chicago	1888	Logan Square Buicks, Chicago	2815
1946	Catherine Fellmeth, Chicago	1835	Silver Seal Soda, St. Louis	2721
1947	Marge Dardeen, Cincinnati	1826	Kornitz Pure Oil, Milwaukee	2987
1948	Virgie Hupfer, Burlington, Iowa	1850	Kathryn Creme Pact, Chicago	2812
1949	Cecelia Winandy, Chicago	1840	Gears by Enterprise, Detroit	2786
1950	Marion Ladewig, Grand Rapids, Mich.	1796	Fanitorium Majors, Grand Rapids, Mich.	2903
1951	LaVerne Haverley, Los Angeles	1788	Hickman Oldsmobile Whirlaway, Indianapolis	2705
1952	Mrs. Virginia Turner, Gardena, Calif.	1854	Cole Furniture, Cleveland	2854

DUCK PINS

Source: A. L. Ebersole, Executive Secretary, National Duck Pin Bowling Congress.

WORLD RECORDS (MEN)

Individual

Event and record holder	Score
Single game—Eddie Funaro, New Haven, Conn.	239
3-game set—Arthur Lemke, Lowell, Mass.	542
4-game set—John Miller-Nova Hamilton, Baltimore (tie)	610
5-game set—William Brozey, Baltimore	785
6-game set—Mike Dziadik, Derby, Conn.	912
7-game set—Howard Parsons, Washington, D. C.	1,091
8-game set—Herman Ford, New Haven, Conn.	1,167
9-game set—Mike Litrenta, Baltimore	1,339
10-game set—Winnie Guerke, Baltimore	1,482
Season average—Nick Tronsky, New Britain, Conn.	134-14

Doubles

Single game—W. Christiano-J. Silk, Norwalk, Conn.	352
3-game set—M. Avon-P. Jarman, Washington, D. C.	929
4-game set—Dawson Snyder-James Rosenberger, Baltimore	1,122
5-game set—W. Esser-J. Dreisch, Baltimore	1,425
6-game set—N. Hamilton-W. Guerke, Baltimore	1,624
7-game set—S. Witkowski, Middletown, Conn.-J. Genovesi, Rockville, Conn.	1,938
8-game set—E. Campbell-L. Seim, Annapolis, Md.	2,128
9-game set—N. Hamilton-W. Guerke, Baltimore	2,431
10-game set—J. Dietsch-J. Weinkam, Baltimore	2,752
Season average—H. Hipsley-J. Dietsch, Baltimore	254-10

Teams

Single game—Winchester Packard, Washington, D. C.	797
2-game set—Hick's Cafe, Baltimore	2,123
5-game set—Kelly Bulck, Baltimore	3,348
10-game set—Park Circle Motor, Baltimore	6,460
15-game set—Popular Club-Recreation, Baltimore	9,420
Consecutive wins—Franks Tavern, Washington, D. C.	33
Season average—National Beer, Baltimore	638-42
3-man game—Middletown (Conn.) All-Stars	475
3-man set—Huguely's Bethesda (Md.) Stars	1,249
3-man 5-game set—C. Hildebrand, E. Pickus, N. Hamilton, Baltimore	1,957

NATIONAL TOURNAMENT CHAMPIONS, 1952

	Score
All-events—Frank Hanley, Shelton, Conn.	1,239
Singles—Frank Hanley	452
Doubles—Mike Avon-Paul Jarman, Washington, D. C.	929
Team—Washington Club, Providence, R. I.	1,933

MIXED DOUBLES

Helen Ploss, Seymour, Conn.-Jack White, New Haven, Conn.	765
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OTHER TABLE TENNIS CHAMPIONS, 1952

United States

Junior—Carl Deatice, Milwaukee
Junior girls—Carolee Leitchy, South Bend, Ind.
Boys—Dave Krizman, South Bend, Ind.
Seniors—Bill Price, St. Louis

DOUBLES

Women—Mrs. Leah Thall Neuberger, New York-Mildred Shahan, St. Louis
Mixed doubles—Sol Schiff-Mrs. Neuberger, New York

English Open Champions

Singles—Richard Bergmann, England
Women's singles—Linda Wertl, Austria
Doubles—Z. Dolinar-V. Harangozo, Yugoslavia
Women's doubles—Diana and Rosalind Rowe, England
Mixed doubles—John Leach-Diana Rowe, England

WORLD RECORDS (WOMEN)

Individual

Event and record holder	Score
Single game—Ruth Zentz, Baltimore, Md.	209
3-game set—Flo Reynolds, Milford, Conn.-Ruth Zentz, Baltimore, Md. (tie)	469
4-game set—Mrs. Ellen Holland, Norfolk, Va.	561
5-game set—Elizabeth Barger, Baltimore, Md.	745
6-game set—Ida Simmons, Norfolk, Va.	835
7-game set—Ida Simmons Slack, Norfolk, Va.	992
8-game set—Elizabeth Barger, Baltimore	1,020
9-game set—Maxine Allen, Durham, N. C.	1,231
10-game set—Ida Simmons, Norfolk, Va.	1,355
Season average—Ida Simmons Slack	124-15

Doubles

Single game—Hazel Wells-Ruby Hovanic, Bridgeport, Conn.	338
3-game set—A. Levy-D. Smith, Norfolk, Va.	798
4-game set—E. Brose-T. McDonough, Baltimore	966
5-game set—A. Mullaney-A. Lucas, Baltimore	1,252
6-game set—I. Simmons-E. Leib, Baltimore	1,458
7-game set—E. Traber-M. Cleaveland, Atlanta, Ga.	1,694
8-game set—T. McDonough-E. Brose, Baltimore	1,905
9-game set—I. Simmons-E. Leib, Baltimore	2,139
10-game set—E. Traber-M. Cleaveland, Atlanta, Ga.	2,354
Season average—N. Zimmerman-M. Tuckey, Baltimore	217

Teams

Single game—Devon All-Star Girls, Devon, Conn.	721
3-game set—Star Laundry Girls, Norwalk, Conn.	1,965
5-game set—Lucky Strike Girls, Portsmouth, Va.	3,017
10-game set—Evening Star Champions, Washington, D. C.	5,438
Season average—Aristocrat Dairy, Baltimore	578-0
Consecutive wins—Bookies, Richmond, Va.	37
3-woman 7-game set—I. Simmons, J. White, E. Lieb, Baltimore	2,433

WOMEN

	Score
All-events—Anne Wissman, Stamford, Conn.	1,186
Singles—Elizabeth Lowry, Richmond, Va.	430
Doubles—Ruby Hovanic-Rose Martinelli, Bridgeport, Conn.	764
Team—Newfield Girls, Bridgeport, Conn.	1,727

Fans 27 in Single Game

Ron Neccial of the Bristol club of the Appalachian League, set a strike-out record for organized baseball when he fanned twenty-seven batters in nine innings and pitched the Twins to a 7-0, no-hit victory over the Welch Miners on May 13, 1952. In the second a batter grounded out to the shortstop, but in the ninth the 19-year-old right-hander struck out four, a feat made possible when a third strike eluded his catcher. Eight nights later the Pittsburgh farmhand fanned twenty-four Kingsport batters while pitching a two-hit, 7-1 victory.

Standard Measurements in Sports

BASEBALL

- Home plate to pitcher's box—60 feet 6 inches.
 Plate to second base—127 feet $3\frac{3}{8}$ inches.
 Distance from base to base (home plate included)—90 feet.
 Size of bases—15 inches by 15 inches.
 Pitcher's plate—24 inches by 6 inches.
 Batter's box—6 feet by 4 feet.
 Home plate—17 inches by 17 inches, cut to a point at rear.
 Home plate to backstop—Not less than 60 feet.
 Weight of ball—Not less than 5 ounces nor more than $5\frac{1}{4}$ ounces.
 Circumference of ball—Not less than 9 inches nor more than $9\frac{1}{4}$ inches.
 Bat—Must be round, not over $2\frac{3}{4}$ inches in diameter at thickest part, nor more than 42 inches in length, and entirely of hardwood in one piece.

FOOTBALL

- * Length of field—120 yards.
 Width of field— $53\frac{1}{2}$ yards (160 feet).
 Height of goal posts—20 feet.
 Height of crossbar—10 feet.
 Width of goal posts—18 feet 6 inches, inside to inside, and not more than 19 feet 2 inches, outside to outside.
 Length of ball— $11\frac{1}{4}$ inches (long axis).
 Circumference of ball—21.5 inches (middle); 28.5 inches (long axis).
 * Includes 10 yards of end zone on either side.

LAWN TENNIS

- Size of court—Rectangle 78 feet long and 27 feet wide (singles); 78 feet long and 36 feet wide (doubles).
 Height of net—3 feet in center, gradually rising to reach 3-foot 6-inch posts at each side of court.
 Ball—Shall be more than $2\frac{1}{2}$ inches and less than $2\frac{5}{8}$ inches in diameter and weigh more than 2 ounces and less than $2\frac{1}{8}$ ounces.
 Service line—21 feet from net.

POLO

- Playing Field—800 yards long by 200 yards wide, if unboarded; 300 by 160, if boarded. In addition, there is an area of about 10 yards from the sidelines and about 30 yards from the back lines known as the safety zone.
 Goals—8 yards wide and at least 10 feet high. The posts must be light enough to break if collided with.
 Ball—Should not exceed $3\frac{1}{4}$ inches in diameter and should weigh from $4\frac{1}{4}$ to $4\frac{3}{4}$ ounces. Usually made of wood, but experiments have been made with plastic balls.
 Ponies—No restrictions on height of mounts.

GOLF

- Weight of ball—Not greater than 1.620 ounces.
 Size of ball—Not less than 1.680 inches in diameter.
 Velocity of ball—Not greater than 250 feet per second.
 Hole—Shall be $4\frac{1}{4}$ inches in diameter and at least 4 inches deep.
 Clubs—No restrictions on the size; 14 is the maximum number permitted in championship competition.

ICE HOCKEY

- Size of rink—200 feet long by 85 feet wide (desired size).
 Size of goal—6 feet wide by 4 feet in height.
 Puck—1 inch thick and 3 inches in diameter; made of vulcanized rubber; weight— $6\frac{1}{4}$ ounces (unofficial).
 Length of stick—Not more than 53 inches from heel to end of shaft nor $14\frac{3}{4}$ inches from heel to end of blade. Blade should not exceed 3 inches in height, except goalkeeper's stick, which shall not exceed $3\frac{1}{2}$ inches in height except at the heel, where it must not exceed $4\frac{1}{2}$ inches.

BASKETBALL

(National Collegiate A. A. Rules)

- Playing court—94 feet long by 50 feet wide (maximum dimensions); 74 feet long by 42 feet wide (minimum dimensions).
 Baskets—Rings 18 inches in inside diameter, with white cord nets, 15 to 18 inches in length. Each ring is made of metal and is not more than $\frac{5}{8}$ of an inch in diameter.
 Height of basket ring—10 feet.
 Weight of ball—Not less than 20 ounces nor more than 22.
 Circumference of ball—No greater than 30 inches and not less than $29\frac{1}{2}$.
 Free-throw line—15 feet from the face of the backboard.

Coppi Tour de France Victor

Fausto Coppi of Italy won the Tour de France, cycling's outstanding long-distance contest, for the second time in 1952. Coppi, who also won the 1952 Tour of Italy, covered the approximately 3,000 miles of the Tour de France in the accumulated time of 151 hours 57 minutes 20 seconds. His previous triumph in the French classic came in 1949.

The leading finishers:

	h. m. s.
1. Fausto Coppi, Italy.....	151:57:20
2. Constant Ockers, Belgium.....	152:25:37
3. Bernardo Ruiz, Spain.....	152:31:58
4. Gino Bartali, Italy.....	152:32:45
5. Jean Robic, France.....	152:32:56
6. Fiorenzo Magni, Italy.....	152:35:45
7. Alex Clouse, Belgium.....	152:35:52
8. Jean Dotto, France.....	152:45:21

BILLIARDS

APPARENTLY nobody knows where billiards originated. Some trace the game back to ancient Greece or early Egyptian days; others insist it originated in France or England in medieval times. Shakespeare must have believed the Egyptian tale, because in *Antony and Cleopatra* he has Cleopatra saying: "Let's to billiards; come, Charmian." There is an illustration of Louis XIV of France playing billiards in 1664 and using a shovel-shaped stick to set the "cue ball" in motion, from which it is evident that the pointed cue was a later development.

Certainly the game was popular in England and on the Continent in the 17th

and 18th centuries and early settlers in North America are supposed to have introduced the game here. How to apply "english" to a billiard ball was discovered by Jack Carr, an Englishman, in 1820. A Frenchman named Mingaud is credited with having invented the "draw" shot at about the same time and also to have devised leather tips for wooden cues. Championship competition, amateur and professional, is a modern development in billiards. The first formal professional tournament held in the United States took place in New York in 1863 with eight players competing. The first three-cushion tournament was held in St. Louis in 1878.

Billiards Statistics

Source: Press Service Bureau, The Billiard Congress of America.

World 18.2 Balk-line Champions

1903-05 Maurice Vignaux	1908 George B. Sutton	1921-22 Jake Schaefer, Jr.	1927 Willie Hoppe
1906 George F. Slosson	1909 Ora C. Morningstar	1923-24 Willie Hoppe	1927 Welker Cochran
1906-07 George B. Sutton	1909 Calvin Demarest	1925 Edward Horemans*	1928 Edward Horemans
1907 Willie Hoppe	1910 Harry P. Cline	1925 Jake Schaefer, Jr.	1929-33 Jake Schaefer, Jr.
1907 Jacob Schaefer, Sr.	1910-20 Willie Hoppe	1926 Erich Hagenlacher	1934 Welker Cochran†
1908 George F. Slosson			

* Disputed match. Schaefer won play-off. † No competition since.

18.2 BALK-LINE RECORDS

Year	Holder	Points	Year	Holder	Points
1925	Jake Schaefer, Jr.	High run (game)..... 400	1925	Jake Schaefer, Jr.	High grand average match... 93.75
1925	Jake Schaefer, Jr.	High run match..... 432	1926	Jake Schaefer, Jr.	High run exhibition match... 585
1925	Jake Schaefer, Jr.	High Average..... 400	1926	Jake Schaefer, Jr.	High grand average 2400 pts. 120
1925	Jake Schaefer, Jr.	High grand average tournament..... 57.14	1926	Welker Cochran	High run exhibition..... 684

World 18.1 Balk-line Champions

1903-05 Maurice Vignaux	1908 Jacob Schaefer, Sr.	1909-11 Willie Hoppe	1914-26 Willie Hoppe
1906 Willie Hoppe	1908 George B. Sutton*	1912 George B. Sutton	1926-27 Jake Schaefer, Jr.
1907 George B. Sutton	1908 George F. Slosson	1913 Ora C. Morningstar	1927 Willie Hoppe†
1907 Willie Hoppe			

* By forfeit. † No competition since.

18.1 BALK-LINE RECORDS

Year	Holder	Points	Year	Holder	Points
1926	Jake Schaefer, Jr.	High run in match play..... 212	1927	Welker Cochran	High run in exhibition..... 353
1926	Jake Schaefer, Jr.	High single average in match play..... 60	1927	Welker Cochran	High single average in exhibition..... 150
1926	Jake Schaefer, Jr.	High grand average in match play..... 36	1927	Welker Cochran	High grand average in exhibition..... 61

FINAL STANDINGS IN 1952 WORLD CHAMPIONSHIP TOURNAMENTS

Three Cushions (At San Francisco)

	W.	L.	High run	Best game
Willie Hoppe	7	2	8	36
Kinrey Matsuyama	6	3	8	32
Jay Bozeman	6	3	10	23
Ray Kilgore	5	4	11	44
Art Rubin	5	4	8	47
Irving Crane	5	4	7	38
Masako Katsura	4	5	6	56
Joe Procita	3	6	8	48
Joe Chamaco	3	6	8	47
Herb Hardt	1	8	7	49

Pocket (At Boston)

	W.	L.	High run	Best game
Willie Mosconi	8	1	121	2
Irving Crane	7	2	113	5
James Moore	6	3	32	6
Arthur Cranfield	6	3	64	8
George Chenier	4	5	57	13
John Fitzpatrick	4	5	55	17
Joe Canton	3	6	32	9
James Mills	3	6	103	10
Donald DeCoy	3	6	55	18
Willie Covington	1	8	59	24

World Three-cushion Champions

1878	León Magnus	1912	John Horgan	1920	John Layton	1935	Welker Cochran
1899	W. H. Catton	1913-14	Alfredo DeOro	1921	Augie Kieckhefer	1936	Willie Hoppe
1900	Eugene Carter	1915	George Moore	1921-23	John Layton	1937	Welker Cochran
1900	Lloyd Jevne	1915	William H. Huey	1923	Tiff Denton	1938	Welker Cochran
1907	Marry P. Cline	1916	Alfredo DeOro	1924	R. L. Cannafax	1939	Joe Chamaco
1908	John Daly	1916	Charles Ellis	1925	R. L. Cannafax	1940-44	Willie Hoppe
1908	Thomas Hueston	1916	Charles McCourt	1926-27	Otto Reiselt	1944	Welker Cochran
1908-09	Alfredo DeOro	1916	Hugh Heal	1927	Augie Kieckhefer	1945-46	Welker Cochran
1910	Fred Eames	1916	George Moore	1928	Otto Reiselt	1947	Willie Hoppe
1910	Alfredo DeOro	1917	Charles McCourt	1928-29	John Layton	1948	Willie Hoppe
1910	John Daly	1917	R. L. Cannafax	1930	John Layton	1949	Willie Hoppe
1910	Thomas Hueston	1917-18	Alfredo DeOro	1931	Arthur Thurnblad	1950	Willie Hoppe
1911	John Daly	1918-19	Augie Kieckhefer	1932	Augie Kieckhefer	1951	Willie Hoppe
1911	Alfredo DeOro	1919	Alfredo DeOro	1933	Welker Cochran	1952	Willie Hoppe
1912	Joe Carney	1919	R. L. Cannafax	1934	John Layton		

THREE-CUSHION RECORDS

High Runs				High Averages—Best Game			
Year	Holder	Event	Points	Year	Holder	Points	Event
1915	Charles Morin	Tournament (Pro)	18	1925	Otto Reiselt	50 in 16 innings	Interstate League
1919	Tiff Denton	Tournament (World)	17	1925	Otto Reiselt	100 in 57 innings	Interstate League
1926	John Layton	Interstate League	18	1925	Otto Reiselt	150 in 104 innings	Interstate League
1927	Willie Hoppe	American League	20	1930	John Layton	50 in 23 innings	Tournament
1928	Willie Hoppe	Exhibition vs. C. C. Peterson	25	1939	Joe Chamaco	50 in 23 innings	National League*
1930	Gus Copulos	Tournament (World)	17	1940	Jay N. Bozeman	50 in 23 innings	Tournament†
1936	Willie Hoppe	Match play	15	1945	Willie Hoppe	50 in 20 innings	Tournament‡
1939	Joe Chamaco	National League*	18	1945	Welker Cochran	60 in 20 innings	Match
1940	Tiff Denton	Tournament†	17	1947	Willie Hoppe	60 in 21 innings	Match‡
1945	Willie Hoppe	Match play‡	20				

* No safeties. † Safeties. ‡ No safeties; optional cue ball first shot of inning.

* No safeties. † Safeties. ‡ No safeties; optional cue ball first shot of inning.

World Pocket Billiard Champions

1878-80	Cyrille Dion	1901	Frank Sherman	1910-12	Alfredo DeOro	1936	James Caras
1881	Gottlieb Wahlstrom	1901	Alfredo DeOro	1912	R. J. Ralph	1937	Ralph Greenleaf
1882-83	Albert Frey	1902	William Clearwater	1913	Alfredo DeOro	1938	James Caras
1884	J. L. Malone	1902	Grant Eby	1913-15	Bennie Allen	1939	James Caras
1886-87	Alfred Frey	1903	Alfredo DeOro	1916	John Layton	1940	Andrew Ponzi (f)
1887	J. L. Malone (f)	1904	Alfredo DeOro	1916-18	Frank Taberski	1941	Willie Mosconi (f)
1887-88	Alfredo DeOro	1905	Jerome Keogh (f)	1919-24	Ralph Greenleaf	1941	Erwin Rudolph (f)
1888	Frank Powers	1905	Alfredo DeOro	1925	Frank Taberski	1942	Irving Crane (m)
1889	Albert Frey	1905	Thomas Hueston (f)	1926	Ralph Greenleaf	1942	Willie Mosconi (f)
1889	Alfredo DeOro	1906	Thomas Hueston	1926	Erwin Rudolph	1943	Andrew Ponzi (m)
1890	H. Manning	1906	John Horgan	1926	Thomas Hueston	1944	Willie Mosconi (m)
1891	Frank Powers (f)	1906	Jerome Keogh	1927	Frank Taberski	1945	Willie Mosconi
1892-94	Alfredo DeOro	1907	Thomas Hueston	1927-28	Ralph Greenleaf	1946	Willie Mosconi
1895	William Clearwater	1908	Thomas Hueston	1928	Frank Taberski	1946	Irving Crane (f)
1895	Alfredo DeOro	1908	Frank Sherman	1929	Ralph Greenleaf	1947	Willie Mosconi (m)
1896	Frank Stewart (f)	1908	Alfredo DeOro	1929	Frank Taberski	1948	Willie Mosconi (m)
1897	Grant Eby	1909	Charles Weston	1930	Erwin Rudolph	1949	Jimmy Caras (f)
1897	Jerome Keogh	1909	John Kling	1930-32	Ralph Greenleaf	1950	Willie Mosconi (f)
1898	William Clearwater	1910	Thomas Hueston	1933-34	Erwin Rudolph	1951	Willie Mosconi (f)
1898	Jerome Keogh	1910	Jerome Keogh	1935	Andrew Ponzi	1952	Willie Mosconi (f)
1899-1900	Alfredo DeOro						

(f) Forfeit. (f) League play. (t) Tourney. (m) Match.

POCKET BILLIARD RECORDS

(14.1 Championship Game)

Event	Points	Holder	Year	Event	Points	Holder	Year
Tournament—high run	125	Ralph Greenleaf	1929	Tournament—best game in innings	2	Ralph Greenleaf	1929†
Tournament—high run	125	Bennie Allen	1935	Tournament (national)—best game in innings	2	Irving Crane	1949
Tournament—high run	125	George Kelly	1935	Tournament (world)—best game in innings	2	Willie Mosconi	1952
Tournament—high run	125	Willie Mosconi	1945	Match—high run for single game	127	Willie Mosconi	1945
Tourney (world)—high run	121	Willie Mosconi	1952	Match—high run for single game	127	James Caras	1946
Exhibition—high run	309	Irving Crane	1939	Match—high run in continuous play	153	Andrew Ponzi	1934
Exhibition—high run	309	Willie Mosconi	1945				
Tournament—high single game average	63	Ralph Greenleaf	1929				
Tournament—high grand average*	18.75	Willie Mosconi	1951				

* 4/20 by table. † Tied by Willie Mosconi in 1946.

National Amateur 18.2 Balk-line Champions

1909—H. A. Wright	1916—C. Huston	1923—Percy Collins†	1929—M. C. Walgren‡
1910—E. W. Gardner	1917—Dave McAndless	1924—E. T. Appleby	1930—Percy Collins
1911—J. F. Poggenburg	1918—Percy Collins	1925—F. S. Appleby	1931—E. T. Appleby
1912—M. D. Brown	1919—C. Heddon	1926-28—John Clinton	1932—Albert Poensgen§
1913—Joseph Mayer	1920—E. T. Appleby	1929—E. T. Appleby‡	1933—Albert Poensgen§
1914—E. W. Gardner	1921—Percy Collins	1929—Percy Collins‡	1934-40—Edmund Sousa
1915—Nathan Hall	1922—E. T. Appleby*		

* International champion. † National 18.1 champion—F. S. Appleby. ‡ Amateur Billiard Association. § International champion.

National Amateur Three-cushion Champions

1910—Pierre Maupome	1925-26—Dr. A. J. Harris	1931—Frank Flemming	1946—Edward Leet†
1911—Charles Morin	1927—Dr. L. P. Macklin	1931-35—Edward Lee	1946—Robert M. Lord†
1919—Arthur Newman	1928—J. N. Bozeman	1936—Edward Lee*	1947—Robert M. Lord†
1920—W. B. Huey	1929—Charles Jordan	1937—A. Primeau	1948—Robert M. Lord†
1921—Earl Lookabaugh	1929—Max Shimon	1938—Gene Deardorff	1948—C. T. Vandenovert†
1922—Frank Flemming	1930—Joseph Hall	1939—Gene Deardorff	1949-49—Edward Leet†
1923—Robert M. Lord	1930—Max Shimon	1945-46—	1949-50—Edward Leet†
1924—Frank Flemming	1930—R. B. Harper	C. T. Vandenovert†	1951—Edward Leet†

* World champion. † Events limited to athletic clubs. ‡ Match.

National Amateur Pocket Billiard Champions

1912—A. Hyman	1925—Carl A. Vaughan	1930—J. H. Shoemaker	1933—E. Fagin
1913—J. H. Shoemaker	1926—Clarence Hurd	1931—Robert Cole	1933—J. H. Shoemaker*
1914—No tournament	1927—J. H. Shoemaker	1931—J. H. Shoemaker*	1934-35—J. H. Shoemaker
1915-22—J. H. Shoemaker	1928—J. Collins	1932—E. Fagin	1936-37—E. C. Rogers
1923—E. F. Reynolds	1929—Cy. Yellin	1932—J. H. Shoemaker*	1938-40—Arthur Cranfield
1924—J. H. Shoemaker			

* By challenge.

BOYS' CLUBS OF AMERICA
CHAMPIONS, 1952

Senior—Gerald Piccirilli, Worcester, Mass.
Junior—Robert Legg, Princeton, Ind.
Team—Boys' Club of New York (Tompkins Square)

INTERCOLLEGIATE CHAMPIONS, 1952

Three-cushion—Paul Ridout, Wisconsin
Straight-rail—Dan Fader, Cornell
Pocket—Bill Sims, Georgia
Co-ed—Sondra Blisky, Purdue

Team

(Telephonic)

Three-cushion—Michigan State
Straight-rail—Michigan Normal
Pocket—Wyoming
Co-ed pocket—Minnesota

WATER POLO, 1952

A. A. U. Champions

Senior outdoor—Los Alamitos (Calif.)
Naval Air Station
Senior indoor—New York Athletic Club

Ascari Auto Racing Champion

A victory in the Dutch Grand Prix in August enabled Alberto Ascari of Italy to clinch the 1952 world automobile racing championship. Ascari also won the German, French, Belgian, English and Italian Grand Prix races last year.

McArthur U. S. Pentathlon Champion

Pfc. Thad McArthur of Seattle, with 19 points, won the 1952 modern pentathlon championship. The competition was held at West Point, N. Y.

VOLLEY BALL, 1952

Sources: Harold T. Friernood, President, U. S. Volley Ball Association.

U. S. V. B. A. CHAMPIONSHIPS

(At Columbus, Ohio, April 30-May 3)

Open—Hollywood (Calif.) Y. M. C. A.
Y. M. C. A. Senior—Hollywood, Calif.
Intercollegiate—University of Mexico
Y. M. C. A. Veterans—Jamaica, N. Y.
Armed Forces Division—Los Alamitos N. A. S., Long Beach, Calif.
Women—Voit Rubber Co. No. 1 team, Santa Monica, Calif.

AMERICAN TURNERS ASSOCIATION

(At Detroit, May 5-6)

Men—Detroit Varsity
Women—Detroit

NOTE—The 1952 National Amateur Athletic Union championships, scheduled for Ponca City, Okla., were canceled.

1952 ALL-AMERICA SELECTIONS

Open and Y. M. C. A. (first team)—Sid Nachlas, Houston Y. M. C. A.; Marvin Wigley, Jr. and Robert Klingner, Stockton (Calif.) Y. M. C. A.; James Ward, Manuel Saenz and William Stratton, Hollywood (Calif.) Y. M. C. A.
Intercollegiate—Lew Robins, Earlham; Howard Gould and Ronald Hambrook, Florida State; Val Keller, George Williams; Peter Fitch, Springfield; Diaz Souza, Mexico.
Armed Forces—George Yardley, P. J. McCrane and Henry Collis, Los Alamitos N. A. S.; Don Peterson and Lowell Eastman, Whiting A. F. B.; Arlo Roberts, Great Lakes N. A. S.

The New York Canoe Club Challenge Cup, a trophy held by the British since 1933, returned to the United States in 1952 when Louis Whitman of the Phoenix Canoe Club, Lindenhurst, N. Y., in a canoe of his own design, defeated Peter Griffith of London by 1 minute 50 seconds over a ten-mile triangular course at Aldeburgh, England, in August. It was Whitman's second straight victory in the best-of-three series. The first competition for the trophy took place in 1886.

DOG SHOWS

Source: The American Kennel Club.

Morris and Essex Kennel Club Exhibition

(Madison, New Jersey)

Year	Best in show	Breed	Owner
1927	Ch. Higgins' Red Pat.....	Irish setter.....	William W. Higgins
1928	Ch. Delf Discriminate of Pinegrade.....	Sealyham terrier.....	Pinegrade Kennels
1929	Ch. Little Emir.....	Pomeranian.....	Mrs. V. Matta
1930	Ch. Weltona Frizzette of Wiloaks.....	Fox terrier, wire.....	Mr. and Mrs. R. C. Bondy
1931	Ch. Fionne v Loheland of Walnut Hall.....	Great dane.....	Harkness Edwards
1932	Ch. Lone Eagle of Earlsmoor.....	Fox terrier, wire.....	Dr. and Mrs. S. Milbank
1933	Eppingville of Blarney.....	Fox terrier, wire.....	John G. Bates
1934	Ch. Gunside Babs of Hollybourne.....	Sealyham terrier.....	S. L. Froelich
1935	Ch. Milson O'Boy.....	Irish setter.....	Mrs. Cheever Porter
1936	Ch. Mr. Reynal's Monarch.....	Harrier.....	Amory L. Haskell
1937	Ch. Sturdy Max.....	English setter.....	Maridor Kennels
1938	Ch. Ideal Weather.....	Old English sheep dog.....	Leonard Collins
1939	Ch. My Own Brucie.....	Cocker spaniel.....	H. E. Mellenthin
1940	Ch. Blakeen Jung Frau.....	Poodle, standard.....	Blakeen Kennels
1941	Ch. Nornay Saddler.....	Fox terrier, smooth.....	Wissaboo Kennels
1946	Ch. Benbow's Beau.....	Cocker spaniel.....	Robert A. Gusman
1947	Rock Ridge Night Rocket.....	Bedlington terrier.....	Mr. and Mrs. W. A. Rockefeller
1948	Ch. Rock Ridge Night Rocket.....	Bedlington terrier.....	Mr. and Mrs. W. A. Rockefeller
1949	Ch. Walsing Winning Trick of Edgerstoune.....	Scottish terrier.....	Mrs. John G. Winant
1950	Ch. Tyrone Farm Clancy.....	Irish setter.....	Jack Spear
1951	Ch. Rock Falls Colonel.....	English setter.....	William T. Holt
1952	Ch. Wyretex Wyns Traveller of Trucote.....	Fox terrier, wire.....	Mrs. Leonard Smit

Westminster Kennel Club Exhibition

(Madison Square Garden, New York, N. Y.)

Year	Best in show	Breed	Owner
1907-09	Ch. Warren Remedy.....	Fox terrier, smooth.....	Winthrop Rutherford
1910	Ch. Sabine Rarebit.....	Fox terrier, smooth.....	Sabine Kennels
1911	Ch. Tickle Em Jock.....	Scottish terrier.....	A. Albright, Jr.
1912	Ch. Kenmore Sorceress.....	Airedale terrier.....	William P. Wolcott
1913	Ch. Strathway Prince Albert.....	Bulldog.....	Alex H. Stewart
1914	Ch. Brentwood Hero.....	Old English sheep dog.....	Mrs. Tyler Morse
1915-16	Ch. Matford Vic.....	Fox terrier, wire.....	George W. Quintard
1917	Ch. Conejo Wycollar Boy.....	Fox terrier, wire.....	Mrs. Roy A. Rainey
1918	Ch. Haymarket Faultless.....	Bull terrier.....	R. H. Elliot
1919	Ch. Briergate Bright Beauty.....	Airedale terrier.....	G. L. L. Davis
1920	Ch. Conejo Wycollar Boy.....	Fox terrier, wire.....	Mrs. Roy A. Rainey
1921	Ch. Midkiff Seductive.....	Cocker spaniel.....	William T. Payne
1922	Ch. Boxwood Barkentine.....	Airedale terrier.....	Frederic C. Hood
1923	No best in show award		
1924	Ch. Barberryhill Bootlegger.....	Sealyham terrier.....	Bayard Warren
1925	Ch. Governor Moscow.....	Pointer.....	Robert F. Maloney
1926	Ch. Signal Circuit.....	Fox terrier, wire.....	Halleston Kennels
1927	Ch. Pinegrade Perfection.....	Sealyham terrier.....	Frederic C. Brown
1928	Ch. Talavera Margaret.....	Fox terrier, wire.....	R. M. Lewis
1929	Land Loyalty of Bellhaven.....	Collie.....	Mrs. Florence B. Ilch
1930-31	Ch. Pendley Calling of Blarney.....	Fox terrier, wire.....	John G. Bates
1932	Ch. Nancollett Markable.....	Pointer.....	Giralda Farms
1933	Ch. Warland Protector of Shelterock.....	Airedale terrier.....	S. M. Stewart
1934	Ch. Flornell Spicy Bit of Halleston.....	Fox terrier, wire.....	Halleston Kennels
1935	Ch. Nunsoe Duc de la Terrasse of Blakeen.....	Poodle.....	Blakeen Kennels
1936	Ch. St. Margaret Magnificent of Clairedale.....	Sealyham terrier.....	Clairedale Kennels
1937	Ch. Flornell Spicy Piece of Halleston.....	Fox terrier, wire.....	Halleston Kennels
1938	Daro of Maridor.....	English setter.....	Maridor Kennels
1939	Ferry v. Rauhelsen of Giralda.....	Doberman pinscher.....	Giralda Farms
1940-41	Ch. My Own Brucie.....	Cocker spaniel.....	H. E. Mellenthin
1942	Ch. Wolvey Pattern Edgerstoune.....	West Highland terrier.....	Mrs. John G. Winant
1943	Ch. Pitter Patter of Piperscroft.....	Miniature poodle.....	Mrs. P. H. B. Frelinghuysen
1944	Ch. Flornell Rare-Bit of Twin Ponds.....	Welsh terrier.....	Mrs. Edward P. Alker
1945	Shieling's Signature.....	Scottish terrier.....	Mr. and Mrs. T. H. Sneathen
1946	Ch. Hetherington Model Rhythm.....	Fox terrier, wire.....	Mr. and Mrs. T. H. Carruthers III
1947	Ch. Warford of Mazelaine.....	Boxer.....	Mr. and Mrs. R. C. Kettles, Jr.
1948	Ch. Rock Ridge Night Rocket.....	Bedlington terrier.....	Mr. and Mrs. W. A. Rockefeller
1949	Ch. Mazelaine's Zazarac Brandy.....	Boxer.....	Mr. and Mrs. John P. Wagner
1950	Ch. Walsing Winning Trick of Edgerstoune.....	Scottish terrier.....	Mrs. John G. Winant
1951	Ch. Bang Away of Fresh Great.....	Boxer.....	Dr. and Mrs. R. C. Harris
1952	Ch. Rancho Debo's Storm.....	Doberman pinscher.....	Mr. and Mrs. Len Cutay

CYCLING

THE ORIGIN and early history of the sport of cycling probably should be sought in the law volumes that contain the court records of decisions in patent cases. There was much dispute and litigation over the priority of inventions and improvements in the development of the bicycle. The fundamental idea of a wheeled frame on which a man could stand or sit and propel himself along a road goes back as far as the time of the Ptolemies in Egypt, but nothing progressive was done about it until a Frenchman named de Sivrac, in 1769, invented a tricycle on which he sat and rolled along by pushing his feet against the ground. There were various two-wheeled and three-wheeled improvements developed by French, German and English experimenters in the next century or so. The frames were better; steering with the front wheel was a new feature; handlebars were of more convenient design and adjustable seats were added. But the rider still pushed himself along with his feet until, about 1820, somebody had the bright idea of rotating the front wheel with a geared device, the rider furnishing the power by

pushing and pulling handlebars mounted on a spindle. Pedals came along about 1840 and, in the case of bicycles, were attached to the front wheel that grew to be much larger than the rear wheel. Solid rubber tires began to replace iron tires in 1869.

There was a long legal dispute about credit for the invention of the "safety bicycle" with two wheels of equal size and pedals attached to a sprocket that, through gears and a chain, applied power to the rear wheel but, in any case, the "safety" or modern bicycle had just about driven the old "high-wheeler" off the roads by 1890. Pneumatic tires were invented in 1888 by J. B. Dunlop, a Scotsman who was a practising veterinarian in Belfast, Ireland, and in a few years all the better bicycles were using pneumatic tires. But when Dunlop tried to patent his invention, it was discovered that a stranger named R. W. Thomson had taken out an English patent on such an idea in 1845. The Pickwick Bicycle Club, founded in London, 1870, was the first bicycle organization. The League of American Wheelmen was organized in 1880.

WORLD RECORDS

Source: Otto Elsele, Associate Editor, *American Bicyclist*.

The Union Cycliste Internationale, world ruling body, made new provisions in 1948 for the setting of bicycle track records. Old records, now discarded, were based on the measuring line being 30 centimeters (11.8 inches) from the inside of the track. The new code calls for the measuring line to be 20 centimeters (7.8 inches) from the inside. Only six basic distances are now permitted, with the marks separated into two classes—amateur and professional. New standards were compiled from the old on the basis of the measuring line being 20 centimeters.

OUTDOOR PROFESSIONAL

Unpaced Standing Start

Distance	Holder and country	Where made	Year	Time
1 kilometer	R. H. Harris, Great Britain	Milan	1949	1:09 $\frac{4}{5}$
5 kilometers	F. Battesini, Italy	Milan	1938	6:21
10 kilometers	M. Archambaud, France	Milan	1937	12:53
20 kilometers	M. Archambaud, France	Milan	1937	25:59 $\frac{3}{5}$
100 kilometers	M. de Benedetti, Italy	Milan	1942	2:20:44 $\frac{4}{5}$
1 hour	F. Coppi, Italy	Milan	1942	28 ml. 805 yd.

INDOOR PROFESSIONAL

Unpaced Standing Start

1 kilometer	R. H. Harris, Great Britain	Brussels	1950	1:07
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Motor-Paced*

1 hour	J. Lohmuller, Switz.	Paris	1948	44 ml. 78 yd.
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* Third U. C. I. regulations (1933, etc.).

FORMER WORLD RECORDS

Unpaced Flying Start

Distance	Holder and country	Where made	Year	Time
$\frac{1}{4}$ mile	Ivor Lawson, United States	Salt Lake City	1906	0:23 4/5
500 meters	L. Michard, France	Bordeaux	1932	0:29 4/5
$\frac{1}{2}$ mile	A. J. Clark, Australia	Saltair, Utah	1903	0:50 2/5
1 kilometer	F. Battesini, Italy	Milan	1938	1:04 3/5
$\frac{3}{4}$ mile	Percy Lawrence, United States	Saltair, Utah	1903	1:23 3/5
1 mile	Alfred Gouliet, Australia	Salt Lake City	1912	1:51

Unrestricted Motor-Paced

			Miles	Yards
12 hours	Hubert Opperman, Australia	Melbourne	1932	471
24 hours	Hubert Opperman, Australia	Melbourne	1932	850
				367

Unpaced Standing Start

¼ mile.....	L. Fauchaux, France.....	Arcachon.....	1936.....	0:27 4/5
500 meters.....	L. Fauchaux, France.....	Bordeaux.....	1934.....	0:33 4/5
½ mile.....	L. Michard, France.....	Bordeaux.....	1931.....	0:56 1/5
1 kilometer.....	F. Battesini, Italy.....	Milan.....	1933.....	1:10
¾ mile.....	G. Renaudin, France.....	Bordeaux.....	1933.....	1:28
1 mile.....	G. Renaudin, France.....	Bordeaux.....	1933.....	2:00 3/5

Human Paced—Standing Start

				Time
½ mile.....	J. S. Johnson, United States.....	Catford, England.....	1896.....	0:54 2/5
1 kilometer.....	R. Pottier, France.....	Paris.....	1904.....	1:08 1/5
¾ mile.....	J. W. Stocks, Great Britain.....	London.....	1897.....	1:18 2/5
1 mile.....	Major Taylor, United States.....	Manhattan Beach, N. Y.....	1898.....	1:41 2/5
50 miles.....	R. Palmer, Great Britain.....	London.....	1897.....	1:34:45 4/5

Hour Records

				Miles	Yards
Unpaced.....	F. Coppi, Italy.....	Milan.....	1942.....	28	805
Human-paced.....	J. W. Stocks, Great Britain.....	London.....	1897.....	32	1,085
Motor-paced (u).....	Leon Vanderstuyft, Belgium.....	Monthéry.....	1928.....	76	504
Motor-paced*.....	H. Breau, France.....	Monthéry.....	1926.....	58	156
Motor-paced†.....	H. Grant, Great Britain.....	Paris.....	1932.....	56	929

(u) Unrestricted motor paced. * First U. C. I. regulations (1920-29). † Second U. C. I. regulations (1930, etc.).

NATIONAL AMATEUR CHAMPIONS

Source: Amateur Bicycle League of America, Inc.

Year	Winner	Where held	Year	Winner	Where held
1921	Arthur Nieminsky, New York.....	Washington, D. C.	1937	Charles Bergna, New Jersey.....	Buffalo
1922	Carl Hambacher, New Jersey.....	Atlantic City	1939	Martin Deras, California.....	Columbus
1923	Charles Barclay, California.....	Chicago	1940	Furman Kugler, New Jersey.....	Detroit
1924	Charlie Winter, New York.....	Buffalo	1941	Marvin Thomson, Illinois.....	Pasadena, Calif.
1925	Edward Merkner, Illinois.....	St. Louis	1945	Ted Smith, New York.....	Chicago
1926	Edward Merkner, Illinois.....	Philadelphia	1946	Don Hester, California.....	Columbus
1927	Jimmy Walthour, Jr., New York.....	Louisville	1947	Ted Smith, New York.....	Philadelphia
1928	R. J. Connor, District of Columbia.....	Kenosha, Wis.	1948	Ted Smith, New York.....	Kenosha, Wis.
1929	Sergio Matteini, New York.....	Newark, N. J.	1949	James Lauf, Maryland.....	San Diego, Calif.
1930	Bobby Thomas, Wisconsin.....	Kenosha, Wis.	1950	Robert Pfarr, Wisconsin.....	New Brunswick
1935	Cecil Hursey, Georgia.....	Atlantic City	1951	Gus Gatto, California.....	Columbus
1936	Jackie Simes, New Jersey.....	St. Louis	1952	Steve Hromjak, Ohio.....	New Brunswick

AMATEUR BICYCLE LEAGUE OF AMERICA RECORDS

ROAD COMPETITION—SCRATCH

Distance, mi.	Time	Record-holder and where made	Date
1/4	:29 2/5	B. W. King, Atlantic City, N. J.	Sept. 16, 1922
1/3	:38 3/5	Charles Winters, Chicago, Ill.	Sept. 8, 1923
1/2	1:04 3/5	John Leahy, Louisville, Ky.	Sept. 11, 1927
1	2:02	Henry Surman.....	
		R. L. Guthridge.....	
		S. C. Haberle.....	Westfield, N. J.
		Theodore Becker, Louisville, Ky.	Aug. 8, 1908
2	4:46 1/5	Don Sheldon, Columbus, Ohio.....	Sept. 10, 1927
3	7:18 2/5	Vaughan Angell, Columbus, Ohio.....	Aug. 18, 1946
5	11:38	Gus Gatto, Columbus, Ohio.....	Aug. 4, 1951
10	23:22 1/5	Jackie W. Simes, Jr., Washington, D. C.	Aug. 5, 1951
15	48:40 2/5	A. E. Wahl, Buffalo, N. Y.	Oct. 11, 1936
20	45:22	Charles R. Thomas, Tonawanda, N. Y.	July 4, 1921
25	1:02:14	Leo Adams, Buffalo, N. Y.	Sept. 6, 1937
50	2:02:00	Louis Maltese, Union City, N. J., to South Philadelphia, Pa.	July 14, 1935
100	4:33:25 1/5	Don Sheldon, Old Westbury, N. Y.	June 6, 1926
125	6:20:20 4/5		Oct. 19, 1947

WORLD CHAMPIONSHIPS, 1952

(Amateur and professional road competition at Luxembourg, Aug. 23-24; other events at Paris, France, Aug. 26-31.)

Amateur road—Luciano Clancola, Italy

Pro. road—Heinz Mueller, Germany

Amateur sprint—Enzo Sacchi, Italy

Pro. sprint—Oskar Plattner, Switzerland

Amateur pursuit—Piet Van Heusden, Holland

Pro. pursuit—Sid Patterson, Australia

Pro. motor-paced—Adolphe Verschueren, Belgium

U. S. AMATEUR CHAMPIONSHIPS

(At New Brunswick, N. J., Aug. 30-31)

Open—Steve Hromjak, Cleveland

1 mile—Steve Hromjak

2 miles—Steve Hromjak

5 miles—Gus Gatto, San Jose, Calif.

Jr. open—John Chiselko, Somerville, N. J.

Girls' open—Jeanne Robinson, Detroit

POLO

POLO originated "somewhere east of Suez" but exactly where never has been determined. There is pictorial proof that it was played many centuries ago in Persia, Japan, China and Tibet, but it reached England by way of a border tribe in India known as the Manipuri. British army officers in India, about 1860, found the Manipuri playing polo and learned the game from them. The fact that the Manipuri used small native horses—they had no others—was the reason for the early height limit (14 hands) on polo mounts, from which arose the custom of calling them "polo ponies," which was abandoned in 1919.

In 1869 some officers of the 10th Hussars, returning from India, introduced the game in England and informal games were played with as many as eight players on a side. Formal competition at Hurlingham, the great shrine of the game, began in 1876 with five players on a side, which

number was cut to four in 1882. In 1884 an outstanding English player by the name of John Watson invented the backhand stroke and much improved the tactics of the game.

James Gordon Bennett, Jr., noted American newspaper owner and editor, saw polo at Hurlingham in 1875, brought the implements to this country, had a carload of cow ponies sent up from Texas and promoted a game that was played indoors at the Dickel Riding Academy at Fifth Avenue and 39th Street, New York City, in 1876. Polo moved outdoors to the Jerome Park race course and other suitable places soon after. One field on which it was played, at Fifth Avenue and 110th Street, was taken over by the New York baseball team in the National League and that is why the field on which the "Giants" play ball, although there since have been two changes in site, still is called "the Polo Grounds."

Polo Statistics

Source: United States Polo Association.

INTERNATIONAL MATCHES

Great Britain vs. United States

1886 Won by Great Britain (10-4, 14-2) at Newport, R. I. Great Britain: No. 1, Capt. T. Hone; No. 2, Hon. R. Lawley; No. 3, Capt. Malcolm Little; Back, John Watson. United States: No. 1, Winthrop K. Thorne; No. 2, R. Belmont; No. 3, Foxhall P. Keene; Back, Thomas Hitchcock.

1902 Won by Great Britain (1-2, 6-1, 7-1) at Hurlingham. Great Britain: No. 1, Cecil P. Nickalls; No. 2, P. W. Nickalls and F. M. Freake; No. 3, Walter Buckmaster and George A. Miller; Back, Charles D. Miller and Walter Buckmaster. United States: No. 1, R. L. Agassiz and J. M. Waterbury, Jr.; No. 2, J. E. Cowdin and Lawrence Waterbury; No. 3, Foxhall P. Keene; Back, Lawrence Waterbury and R. L. Agassiz.

1909 Won by United States (9-5, 8-2) at Hurlingham. United States: No. 1, Lawrence Waterbury; No. 2, J. M. Waterbury, Jr.; No. 3, Harry Payne Whitney; Back, Devereux Milburn. Great Britain: No. 1, Capt. Herbert H. Wilson and Harry Rich; No. 2, F. M. Freake; No. 3, P. W. Nickalls; Back, Lord Wodehouse and Capt. J. Hardress Lloyd.

1911 Won by United States (4½-3, 4½-3½) at Meadow Brook. United States: No. 1, Lawrence Waterbury; No. 2, J. M. Waterbury, Jr.; No. 3, Harry Payne Whitney; Back, Devereux Milburn. Great Britain: No. 1, Capt. Leslie St. G. Cheape; No. 2, A. Noel Edwards; No. 3, Capt. J. Hardress Lloyd; Back, Capt. Herbert H. Wilson.

1913 Won by United States (5½-3, 4½-4¼) at Meadow Brook. United States: No. 1, Lawrence Waterbury and Louis E. Stoddard; No. 2, J. M. Waterbury, Jr., and Lawrence Waterbury; No. 3, Harry Payne Whitney; Back, Devereux Milburn. Great Britain: No. 1, Capt. Leslie St. G. Cheape; No. 2, A. Noel Edwards and F. M. Freake; No. 3, Capt. R. G. Ritson; Back, Capt. Vivian N. Lockett.

1914 Won by Great Britain (8½-3, 4-2¾) at Meadow Brook. Great Britain: No. 1, Capt. H. A. Tomkinson; No. 2, Capt. Leslie St. G. Cheape; No. 3, Maj. F. W. Barrett; Back, Capt. Vivian N. Lockett. United States: No. 1, Rene LaMontagne; No. 2, J. M. Waterbury, Jr.; No. 3, Devereux

Milburn and Lawrence Waterbury; Back, Lawrence Waterbury and Devereux Milburn.

- 1921 Won by United States (11-4, 10-6) at Hurlingham. United States: No. 1, Louis E. Stoddard; No. 2, Thomas Hitchcock, Jr.; No. 3, J. Watson Webb; Back, Devereux Milburn. Great Britain: No. 1, Lt. Col. H. A. Tomkinson; No. 2, Maj. F. W. Barrett; No. 3, Lord Wodehouse; Back, Maj. Vivian N. Lockett.
- 1924 Won by United States (16-5, 14-5) at Meadow Brook. United States: No. 1, J. Watson Webb; No. 2, Thomas Hitchcock, Jr.; No. 3, Malcolm Stevenson and Robert E. Strawbridge Jr.; Back, Devereux Milburn. Great Britain: No. 1, Maj. T. W. Kirkwood and Lt. Col. T. P. Melvill; No. 2, Maj. F. W. Hurndall and Maj. G. H. Phipps-Hornby; No. 3, Maj. E. G. Atkinson; Back, Lewis L. Lacey.
- 1927 Won by United States (13-3, 8-5) at Meadow Brook. United States: No. 1, J. Watson Webb; No. 2, Thomas Hitchcock, Jr.; No. 3, Malcolm Stevenson; Back, Devereux Milburn. Great Britain: No. 1, Capt. Claude E. Pert and Capt. R. George; No. 2,

Maj. Austin H. Williams and Capt. J. P. Dening; No. 3, Capt. C. T. I. Roark; Back, Maj. E. G. Atkinson.

- 1930 Won by United States (10-5, 14-9) at Meadow Brook. United States: No. 1, Eric Pedley; No. 2, Earle A. S. Hopping; No. 3, Thomas Hitchcock, Jr.; Back, Winston F. C. Guest. Great Britain: No. 1, Gerald Balding; No. 2, Lewis L. Lacey; No. 3, Capt. C. T. I. Roark; Back, Humphrey P. Guinness.
- 1936 Won by United States (10-9, 8-6) at Hurlingham. United States: No. 1, Eric Pedley; No. 2, Michael G. Phipps; No. 3, Stewart B. Iglehart; Back, Winston F. C. Guest. Great Britain: No. 1, Hesketh H. Hughes; No. 2, Gerald Balding; No. 3, Eric H. Tyrrell-Martin; Back, Humphrey P. Guinness.
- 1939 Won by United States (11-7, 9-4) at Meadow Brook. United States: No. 1, Michael G. Phipps; No. 2, Thomas Hitchcock, Jr.; No. 3, Stewart B. Iglehart; Back, Winston F. C. Guest. Great Britain: No. 1, Robert Skene; No. 2, Aidan Roark; No. 3, Gerald Balding; Back, Eric H. Tyrrell-Martin.

Argentina vs. United States

- 1928 Won by United States (7-6, 7-10, 13-7) at Meadow Brook. United States: No. 1, W. A. Harriman; No. 2, Thomas Hitchcock, Jr.; and E. A. S. Hopping; No. 3, Malcolm Stevenson and Thomas Hitchcock, Jr.; Back, Winston F. C. Guest. Argentina: No. 1, Arturo Kenny; No. 2, J. D. Nelson; No. 3, J. B. Miles; Back, Lewis L. Lacey.
- 1932 Won by United States (9-6, 7-8, 12-10) at Buenos Aires. United States: No. 1, Michael G. Phipps; No. 2, Elmer J. Boeseke, Jr.; No. 3, Winston F. C. Guest; Back, William Post, 2d. Argentina: No. 1, Arturo Kenny; No. 2, J. D. Nelson and Martin Reynal; No. 3, José Reynal; Back, Manuel Andrada.
- 1936 Won by Argentina (21-9, 8-4) at Meadow Brook. Argentina: No. 1, Luis Duggan; No. 2, Roberto Cavanaugh; No. 3, Andres Gazzotti; Back, Manuel Andrada. United States: No. 1, G. H. Bostwick; No. 2, Gerald Balding; No. 3, Thomas Hitchcock, Jr.; Back, John Hay Whitney.
- 1950 Won by Argentina (14-10, 11-7) at Buenos Aires. Argentina: No. 1, Juan Cavanagh; No. 2 Roberto Cavanagh; No. 3, Enrique Alberdi; Back, Juan Carlos Alberdi. United States: No. 1, Delmar Carroll; No. 2, Peter Perkins; No. 3, George K. Oliver; Back, Lewis Smith.

OUTDOOR CHAMPIONS, 1952

Waterbury Cup—Milwaukee Shamrocks (Billy Ylvisaker, Ray Harrington, Alan Corey, Jr., Tom Cross)

National 20-goal—Meadow Brook Club, Westbury, N. Y. (Philip Iglehart, Ray Harrington, Alan Corey, Jr., Henry Lewis III)

Autumn Plates (16 goals)—Brandywine P. C., Philadelphia (Jimmy McHugh, Charles R. Leonard, Jr., Al Parsells, Ray Harrington)

National 12-goal—Blind Brook P. C., Purchase, N. Y. (Tom Glynn, Adie Von Gontard, Cyril Harrison, Jack Crawford)

National intercircuit — Pittsfield, Mass. (Charles Wheeler, Herb Pennell, Zenas Colt, Joseph Poor)

Indoor Polo Champions, 1952

National senior—New York A. C. (Herb Pennell, Zenas Colt, John Pfug)
National intercollegiate—New Mexico Military Institute (Jack Dean, Rube Evans, Randy Crawford)
Eastern 12-goal—New York A. C. (Archie Young, Zenas Colt, John Pfug)
Sherman Memorial—New Jersey (Bill Westerlund, Dave Ellis, Bob Ackerman)

William Mihalo, a professional walker, set a world mark for 100 yards by covering the distance in 14 seconds at Detroit on Aug. 29, 1952. The previous record was 0:18.3, made by M. H. Donovan of Westport, N. Y., in 1897.

NATIONAL OPEN POLO CHAMPIONS

Not held from 1905 to 1909, inclusive; 1911, 1915, 1917, 1918, and from 1942 to 1945, inclusive.

1904—WANDERERS

- 1—C. R. Snowden
2—J. E. Cowdin
3—J. M. Waterbury, Jr.
Back—L. Waterbury

1910—RANELAGH

- 1—R. N. Grenfell
2—F. Grenfell
3—Earl of Rocksavage
Back—F. A. Gill

1912—COOPERSTOWN

- 1—F. S. von Stade
2—C. C. Rumsey
3—C. P. Beadleston
Back—M. Stevenson

1913—COOPERSTOWN

- 1—F. S. von Stade
2—C. C. Rumsey
3—C. P. Beadleston
Back—M. Stevenson

1914—MEADOW BROOK
MAGPIES

- 1—N. L. Tilney
2—J. W. Webb
3—W. G. Loew
Back—H. Phipps

1916—MEADOW BROOK

- 1—H. Phipps
2—C. C. Rumsey
3—W. G. Loew
Back—D. Milburn

1919—MEADOW BROOK

- 1—F. H. Prince, Jr.
2—J. W. Webb
3—F. S. von Stade
Back—D. Milburn

1920—MEADOW BROOK

- 1—F. S. von Stade
2—J. W. Webb
3—R. E. Strawbridge, Jr.
Back—D. Milburn

1921—GREAT NECK

- 1—L. E. Stoddard
2—R. Wanmaker, II
3—J. W. Webb
Back—R. E. Strawbridge, Jr.

1922—ARGENTINE

- 1—J. B. Miles
2—J. D. Nelson
3—D. B. Miles
Back—L. L. Lacey

1923—MEADOW BROOK

- 1—R. Belmont
2—T. Hitchcock, Jr.
3—R. E. Strawbridge, Jr.
Back—D. Milburn

1924—MIDWICK

- 1—E. G. Miller
2—E. L. Pedley
3—A. P. Perkins
Back—C. F. Burke

1925—ORANGE COUNTY

- 1—W. A. Harriman
2—J. W. Webb
3—M. Stevenson
Back—J. C. Cowdin

1926—HURRICANES

- 1—S. Sanford
2—E. L. Pedley
3—Capt. C. T. I. Roark
Back—R. E. Strawbridge, Jr.

1927—SANDS POINT

- 1—W. A. Harriman
2—T. Hitchcock, Jr.
3—J. C. Cowdin
Back—L. E. Stoddard

1928—MEADOW BROOK

- 1—C. V. Whitney
2—W. F. C. Guest
3—J. B. Miles
Back—M. Stevenson

1929—HURRICANES

- 1—S. Sanford
2—Capt. C. T. I. Roark
3—J. W. Webb
Back—R. E. Strawbridge, Jr.

1930—HURRICANES

- 1—S. Sanford
2—E. L. Pedley
3—Capt. C. T. I. Roark
Back—R. E. Strawbridge, Jr.

1931—SANTA PAULA

- 1—A. Gazzotti
2—José Reynal
3—Juan Reynal
Back—M. Andrada

1932—TEMPLETON

- 1—M. G. Phipps
2—W. F. C. Guest
3—S. B. Iglehart
Back—R. R. Guest

1933—AURORA

- 1—S. H. Knox
2—J. P. Mills
3—E. T. Gerry
Back—E. J. Boeseke, Jr.

1934—TEMPLETON

- 1—M. G. Phipps
2—W. F. C. Guest
3—S. B. Iglehart
Back—R. R. Guest

1935—GREENTREE

- 1—G. H. Bostwick
2—T. Hitchcock, Jr.
3—G. Balding
Back—J. H. Whitney

1936—GREENTREE

- 1—G. H. Bostwick
2—G. Balding
3—T. Hitchcock, Jr.
Back—J. H. Whitney

1937—OLD WESTBURY

- 1—M. G. Phipps
2—C. Smith
3—S. B. Iglehart
Back—C. V. Whitney

1938—OLD WESTBURY

- 1—M. G. Phipps
2—C. Smith
3—S. B. Iglehart
Back—C. V. Whitney

1939—BOSTWICK FIELD

- 1—G. H. Bostwick
2—R. L. Gerry, Jr.
3—E. T. Gerry
Back—E. H. Tyrrell-Martin

1940—AKNUSTI

- 1—G. S. Smith
2—R. L. Gerry, Jr.
3—E. T. Gerry
Back—A. L. Corey, Jr.

1941—GULF STREAM

- 1—J. H. A. Phipps
2—M. G. Phipps
3—C. S. von Stade
Back—A. L. Corey, Jr.

1946—HERRADUBA

- 1—Gabriel Gracida
2—Guillermo Gracida
3—Alejandro Gracida
Back—José Gracida

1947—OLD WESTBURY

- 1—P. Silvero
2—C. C. Combs
3—S. B. Iglehart
Back—G. Oliver

1948—HURRICANES

- 1—L. Sheerin
2—P. Perkins
3—C. Smith
Back—S. Sanford

1949—HURRICANES

- 1—L. Sheerin
2—R. Cavanaugh
3—C. Smith
Back—S. Sanford

1950—BOSTWICK FIELD

- 1—G. H. Bostwick
2—George Oliver
3—A. L. Corey, Jr.
Back—D. Milburn, Jr.

1951—MILWAUKEE

- 1—Pedro Silvero
2—Péter Perkins
3—George Oliver
Back—Bob Uihlein

1952—BEVERLY HILLS

- 1—Bob Fletcher
2—Tony Veen
3—Bob Skene
Back—Carlton Beal

1952 NATIONAL OPEN FINAL

(At Beverly Hills, Calif., June 1)

BEVERLY HILLS (9)

- 1—Bob Fletcher
2—Tony Veen
3—Bob Skene
Back—Carlton Beal

SAN FRANCISCO (6)

- 1—Vic Graber
2—Eric Pedley
3—Billy Linfoot
Back—Bob Smith

SCORE BY PERIODS

Beverly Hills	2	2	2	1	1	1—9
San Francisco	0	1	1	1	0	3—6

Goals—Beverly Hills: Fletcher 3, Veen 2, Skene 2, Beal by pony 1. San Francisco: Graber, Pedley 2, Linfoot 2.

Impres—Chuck Wheeler and Don Howden. Referee—Lou Rowan.

U. S. PRO TENNIS CHAMPIONS

1927—30—Vincent Richards

1931—William T. Tilden, II

1932—Karel Kozeluh

1933—Vincent Richards

1934—Hans Nusslein

1935—William T. Tilden, II

1936—Joe Whalen

1937—Karel Kozeluh

1938—Fred Perry

1939—Ellsworth Vines

1940—Don Budge

1941—Fred Perry

1942—Don Budge

1943—Bruce Barnes

1944—No tournament

1945—Welby Van Horn

1946—47—Bobby Riggs

1948—Jack Kramer

1949—Bobby Riggs

1950—51—Francisco Segura

WOMEN

FREE STYLE

Distance	Time	Course	Holder	Home country	Where made	Date
100 yd...	58.2 s.	25 m.	Greta Andersen	Denmark	Svendborg	Feb. 24, 1949
100 m...	1 m. 4.6 s.	25 m.	W. Den Ouden	Netherlands	Amsterdam	Feb. 27, 1936
200 m...	2 m. 21.7 s.	25 m.*	R. Hveger	Denmark	Aarhus	Sept. 11, 1938
220 yd...	2 m. 22.6 s.	25 yd.*	R. Hveger	Denmark	Copenhagen	Apr. 23, 1939
400 m...	5 m. 0.1 s.	25 m.	R. Hveger	Denmark	Copenhagen	Sept. 15, 1940
440 yd...	5 m. 7.9 s.	25 yd.	Ann Curtis	U. S.	Seattle, Wash.	May 2, 1947
500 yd...	5 m. 53 s.	25 m.	R. Hveger	Denmark	Copenhagen	Apr. 19, 1942
500 m...	6 m. 27.4 s.	25 m.	R. Hveger	Denmark	Copenhagen	Feb. 11, 1940
800 m...	10 m. 52.5 s.	50 m.*	R. Hveger	Denmark	Copenhagen	Aug. 13, 1941
880 yd...	11 m. 8.6 s.	50 yd.*	Ann Curtis	U. S.	San Francisco	July 30, 1944
1,500 m...	20 m. 57 s.	50 m.*	R. Hveger	Denmark	Copenhagen	Aug. 29, 1941
1 mi...	23 m. 11.5 s.	50 m.*	R. Hveger	Denmark	Helsingør	July 3, 1938

Relays

400-yd...	4 m. 5.3 s.	25 yd.	Chicago Town Club	U. S.	Daytona Beach, Fla.	Apr. 11, 1952
			(J. LaVine, M. Kastelyn, J. Alderson, M. Cahill)			
400-m...	4 m. 24.4 s.	50 m.	National Team	Hungary	Helsinki	Aug. 1, 1952
			(I. Novak, J. Temes, E. Novak, E. Szoke)			

* Salt water.

BREAST STROKE

100 yd...	1 m. 9.2 s.	25 yd.	N. van Vliet	Netherlands	Hilversum	May 4, 1947
100 m...	1 m. 16.9 s.	25 m.	E. Szekely	Hungary	Moscow	May 9, 1951
200 yd...	2 m. 34 s.	25 m.	E. Novak	Hungary	Ozd, Hungary	Dec. 30, 1950
200 m...	2 m. 48.5 s.	25 m.	E. Novak	Hungary	Moscow	May 5, 1951

BACKSTROKE

100 yd...	1 m. 4.6 s.	25 m.	G. Wielema	Netherlands	Hilversum	Mar. 13, 1950
100 m...	1 m. 10.9 s.	25 m.	Cor Kint	Netherlands	Rotterdam	Sept. 22, 1939
150 yd...	1 m. 40.4 s.	25 m.	G. Wielema	Netherlands	Hilversum	Apr. 15, 1951
200 m...	2 m. 35.3 s.	25 m.	G. Wielema	Netherlands	Hilversum	Apr. 2, 1950

MEDLEY RELAY

(Back, breast, free style)

300 yd...	3 m. 18.1 s.	25 yd.	Lafayette S. C.	U. S.	Lafayette, Ind.	May 8, 1952
			(S. Donahue, C. Pence, B. Mullen)			
300 m...	3 m. 35.9 s.		National Team	Netherlands	Rotterdam	Dec. 2, 1950
			(G. Wielema, N. Garritsen, I. Schuhmacher)			

NATIONAL A. A. U. SWIMMING CHAMPIONSHIPS, 1952

Men's Outdoor

(At Newark, N. J., Aug. 26-28)

110-yd. free—Richard Cleveland, Ohio State	0:58.4
220-yd. free—William Woolsey, Honolulu	2:13.2
440-yd. free—Ford Konno, Ohio State	4:48
880-yd. free—Ford Konno	10:07.8
One-mile free—Ford Konno	20:47.1
110-yd. back—Yoshinobu Oyakawa, Ohio State	1:05.7
110-yd. breast—Jerry Holan, Ohio State	1:09.3
220-yd. breast—Bowen Stassforth, Iowa	2:34.7
330-yd. medley—Burwell Jones, Michigan	3:54.8
330-yd. medley relay—Ohio State (Oyakawa, Holan, Cleveland)	3:13.5
880-yd. relay—New Haven S. C. A team (John Marshall, Martin Smith, Jimmy McLane, Wayne Moore)	8:58.8
3-m. dive—David Browning, Texas	202.82 pts.
*Platform dive—Jerry Harrison, Ohio State	459 pts.
Team—Ohio State University	94 pts.

* Held at Columbus, Ohio, Aug. 31.

Men's Indoor

(At New Haven, Conn., April 3-5)

100-yd. free—Clarke Scholes, Michigan State	0:50.2
220-yd. free—Ford Konno, Ohio State	2:06.4
440-yd. free—Ford Konno	4:34.5
1,500-meter free—Ford Konno	18:47.7
100-yd. back—Dick Thoman, New Haven S. C.	0:56.9
150-yd. back—Dick Thoman	1:30.8
100-yd. breast—John Davies, Michigan	0:59.2
220-yd. breast—John Davies, Michigan	2:29.1
300-yd. medley—Burwell Jones, Michigan	2:30.7
300-yd. medley relay—New Haven S. C. A team (Thoman, Dennis O'Connor, Kerry Donovan)	2:47.4
400-yd. free-style relay—New Haven S. C. A team (Thoman, Don Sheff, Donovan, Jim Carroll)	3:23
1-meter dive—David Browning, Texas	554.35 pts.
3-meter dive—David Browning	619.1 pts.
Team—New Haven (Conn.) Swim Club	113 pts.

Record Crowd at Women's Match

A crowd of 45,000, a world record attendance for the sport, saw England beat

Scotland, 9-2, in a women's field hockey game at Wembley Stadium, London, on March 8, 1952.

Swimming (cont.) Women's Indoor

(At Daytona Beach, Fla., April 10-12)

100-yd. free—Jackie LaVine, Chicago.....	0:59.1
200-yd. free—Marilee Stepan, Winnetka, Ill.....	2:16.2
400-yd. free—Carolyn Green, Fort Lauderdale, Fla.....	4:49.6
100-yd. back—Maureen O'Brien, Red Bank, N. J.....	1:09
200-yd. back—Barbara Stark, Berkeley, Calif.....	2:27.5
100-yd. breast—Gail Peters, Trenton, N. J.....	1:11.7
200-yd. breast—Gail Peters.....	2:40.1
300-yd. medley—Gail Peters.....	3:53.1
300-yd. medley relay—Lafayette (Ind.) S. C. A team (Sheila Donahue, Carol Pence, Betty Mullin).....	3:21.9
400-yd. free-style relay—Chicago Town Club A team (Miss LaVine, Mary Kastelyn, Jody Alderson, Marlene Cahill).....	4:05.3
1-meter dive—Mrs. Pat McCormick, Los Angeles	137.33 pts.
3-meter dive—Mrs. Pat McCormick.....	144.11 pts.
Team—Lafayette (Ind.) Swim Club.....	32 pts.

A. A. U. LONG-DISTANCE CHAMPIONS

(At Rosendale, N. Y., Aug. 24)

Individual (4 miles)—Recco Cirigliano, Ohio State.....	1:37:28
Team—Ohrbach A. A., New York.....	15 pts.

WOMEN

(At West Terre Haute, Ind., Aug. 24)

Individual (3 miles)—Ann Moss, Lafayette (Ind.) S. C.....	1:15:35.1
Team—Kenosha (Wis.) Youth Foundation	6 pts.

JUNIOR

(At Warsaw, Ind., July 12)

Individual (4 miles)—Bill Kerr, Indianapolis.....	1:49:57.1
Women's individual (3 miles)—Myrna Hickman, Kenosha, Wis.....	1:17:28.3
Men's team—Indianapolis A. C.	
Women's team—Indianapolis A. C.	

Miss Chadwick's Channel Record

On Sept. 11, 1951, Florence Chadwick of San Diego, Calif., became the first woman to swim the English Channel from England to France, covering a course of about 21 miles from Dover to Sangatte in 16 hours 22 minutes. This feat also made her the first woman to negotiate the treacherous crossing both ways. In 1950 she went from Cape Gris Nez to Dover in 13 hours 20 minutes, then record time for a woman.

In 1952, Miss Chadwick added to her accomplishments by becoming the first woman to swim the 21-mile Catalina Channel after failing in a previous attempt. She made the crossing in the record time of 13 hours 47 minutes and 32 seconds. The former recognized mark was 15 hours 48 minutes, set by George Young in 1927.

Kiphuth Swimmers Excel

Yale swimming teams, under Robert J. H. Kiphuth's coaching, have had four outstanding dual-meet winning streaks since 1918. In 1952 the squad captured 13 in a row to extend Kiphuth's latest string to 85. From 1924 to 1937 the Elis won 175 meets in succession for Kiphuth's best skein. His teams took 65 straight from 1918 to 1924 and 63 from 1938 to 1945.

LAWN BOWLING, 1952

Source: W. G. "Bill" Hay, Honorary President, American Lawn Bowling Association.

National Champions

Singles—Hugh Folkins, Arroyo Seco L. B. C., Los Angeles, runner-up—W. G. "Bill" Hay, Beverly Hills (Calif.) L. B. C.
Doubles—Hugh Folkins—Dick Folkins (skip), Arroyo Seco L. B. C. Runners-up—Jack Scivener—George Dewar (skip), Vancouver, B. C.
Triples—Vancouver South L. B. C., Vancouver (Percy Smith, Buster Lang, Wally Kenmuir (skip). Runners-up—Mt. Pleasant L. B. C., Vancouver (James Morrison, Albert Morrison, Alex Houston (skip)).

Divisional Champions

EASTERN

Rinks—McGuire-Lockie Memorial Trophy: Boston Bowling Green Club (Jack Judge, Neil Blair, Tom Hewitt, David P. Dakers (skip). Simpson Memorial Trophy: Essex County L. B. C., Bloomfield, N. J. (Alex L. Ripley, Robert Bowle, Joseph Turnbull, John Forbes (skip).
Doubles—J. Kenneth Crozier—John W. Beacon (skip), Kew Beach L. B. C., Toronto, Ont. Runners-up—Walter W. Weeden—William C. Hoxie (skip), Cunningham Bowling Green Club, Milton, Mass.
Singles—Alex Thomson, Bridgeport (Conn.) L. B. C. Runners-up—J. Crawford McKnight, Hyde Park L. B. C., Niagara Falls, N. Y.

CENTRAL

Rinks—Budd Trophy: Columbus Park L. B. C., Chicago (George Fullerton, Andrew Gilchrist, John Proctor, George Fyfe (skip). Griffith Trophy: Lakeside L. B. C., Chicago (A. Jarman, E. C. Wright, L. W. Bartlett, T. F. Ziegler (skip).
Doubles—Reid Memorial Trophy: John Gordas—Daniel Penny (skip), Lakeside L. B. C. Association Trophy: Otto Brown, Lorain—Lakeside L. B. C., Lorain, Ohio—James Cosgrove (skip), Detroit East Side L. B. C.
Singles—A. A. Gilchrist, Columbus Park L. B. C.

SOUTHEAST

Triples—J. Lester Esch Memorial Trophy: St. Petersburg L. B. C. (Neil C. Felker, Albert Saddy, Harry H. Hall (skip). Mount Dora L. B. C. Trophy: Orlando L. B. C. (Harry N. Smith, Roy B. Kellogg, Harold L. Esch (skip). City of Daytona Beach Trophy: St. Petersburg L. B. C. (Fred J. Harrington, E. M. Smith, Dr. Weston Krupp (skip).
Doubles—Clearwater L. B. C. Trophy: Harry H. Hall—Neil C. Felker, St. Petersburg L. B. C. Emmet L. Richardson Trophy: Robert P. Bolling—Robert Rankin, St. Petersburg L. B. C. Greater Orlando Chamber of Commerce Trophy: Edward S. Clark—Sebastian Albrecht, Orlando L. B. C.
Singles—St. Petersburg L. B. C. Trophy: Arthur H. Rartley, Clearwater L. B. C. Runner-up—E. B. Gibson, Orlando L. B. C. Orlando L. B. C. Trophy: Robert P. Bolling, St. Petersburg L. B. C.

SOUTHWEST

Triples—Exposition Park L. B. C., Los Angeles (J. Armstrong, W. Armstrong, Alex Buchan (skip). Runners-up—C. Gustafson, Louis Rock, Arroyo Seco L. B. C.; Howard Swallow, Laguna Beach, Calif., L. B. C.
Doubles—Hugh Folkins—Dick Folkins (skip), Arroyo Seco L. B. C. Runners-up: Paul Crery—Dr. Raymond Cary, Recreation Park L. B. C., Long Beach, Calif.
Singles—Bob Veitch, Oakland (Calif.) L. B. C. Runner-up—Arnold Lees, Lakeside L. B. C., Oakland.

Lumsden Canadian Swim Victor

For the third time in four years Cliff Lumsden of Toronto finished first in the ten-mile Lake Ontario swim of the Canadian National Exhibition in 1952. Lumsden was timed in 4 hours 24 minutes 6 seconds and collected \$5,000 for winning and \$200 in lap prizes. Forbes Norris, Jr., of Winchester, Mass., was second and Steve Wozniak of Buffalo third.

BADMINTON

Source: John E. Garrod, American Badminton Association.

United States Champions

Men's Singles

Year

Walter R. Kramer, Detroit, Mich...	1937	Chester Goss—Donald Eversoll, Los Angeles, Calif.
Walter R. Kramer, Detroit, Mich...	1938	Hamilton Law—Richard Yeager, Seattle, Wash.
David G. Freeman, Pasadena, Calif...	1939	Hamilton Law—Richard Yeager, Seattle, Wash.
David G. Freeman, Pasadena, Calif...	1940	Chester Goss—David G. Freeman, Pasadena, Calif.
David G. Freeman, Pasadena, Calif...	1941	Chester Goss—David G. Freeman, Pasadena, Calif.
David G. Freeman, Pasadena, Calif...	1942	Chester Goss—David G. Freeman, Pasadena, Calif.
David G. Freeman, Pasadena, Calif...	1947	D. G. Freeman—Webster Kimball, Pasadena, Calif.
David G. Freeman, Pasadena, Calif...	1948	Wynn Rogers, Arcadia, Calif.—D. G. Freeman.
Marton Mendez, San Diego, Calif...	1949	Barney McGay, Pasadena—Wynn Rogers, Arcadia.
Marton Mendez, San Diego, Calif...	1950	Barney McGay, Pasadena—Wynn Rogers, Arcadia.
Joseph Alston, San Diego, Calif...	1951	Wynn Rogers, Arcadia—Joseph Alston
Marten Mendez, San Diego, Calif...	1952	Joseph Alston, Fargo, N. D.—Wynn Rogers

Men's Doubles

Women's Singles

Mrs. Del Barkhuff, Seattle, Wash...	1937	Mrs. Del Barkhuff—Zoe G. Smith, Seattle, Wash.
Mrs. Del Barkhuff, Seattle, Wash...	1938	Mrs. Roy C. Bergman—Helen Gibson, Westport, Conn.
Mary E. Whittemore, Boston, Mass...	1939	Mrs. Del Barkhuff—Zoe G. Smith, Seattle, Wash.
Evelyn Boldrick, San Diego, Calif...	1940	Elizabeth Anselm—Helen Zabriskie, Oakland, Calif.
Thelma Klingsbury, Oakland, Calif...	1941	Thelma Klingsbury—Janet Wright, Oakland, Calif.
Evelyn Boldrick, San Diego, Calif...	1942	Evelyn Boldrick, San Diego—Janet Wright, Oakland, Calif.
Ethel Marshall, Buffalo, N. Y...	1947	Thelma K. Scovill—Janet Wright, San Francisco.
Ethel Marshall, Buffalo, N. Y...	1948	Thelma K. Scovill—Janet Wright, San Francisco.
Ethel Marshall, Buffalo, N. Y...	1949	Thelma K. Scovill—Janet Wright, San Francisco.
Ethel Marshall, Buffalo, N. Y...	1950	Thelma K. Scovill—Janet Wright, San Francisco.
Ethel Marshall, Buffalo, N. Y...	1951	Dottie Hann, Manhattan Beach, Calif.—Mrs. L. M. Smith
Ethel Marshall, Buffalo, N. Y...	1952	Ethel Marshall—Beatrice Massman, Buffalo, N. Y.

Women's Doubles

Mixed Doubles

1937—Mrs. Del Barkhuff—Hamilton Law, Seattle.
1938—Mrs. Del Barkhuff—Hamilton Law.
1939—Zoe G. Smith—Richard Yeager, Seattle.
1940—Sally L. Williams, Spokane, Wash.—David G. Freeman, Pasadena.
1941—Sally L. Williams—David G. Freeman.
1942—Sally L. Williams—David G. Freeman.
1947—Wynn Rogers—Mrs. Virginia Hill, Pasadena.
1948—Mr. and Mrs. Clinton Stephens, Baltimore.
1949—Wynn Rogers, Arcadia, Calif.—Mrs. Haelet Smith, Los Angeles.
1950—Wynn Rogers—Mrs. Haelet Smith.
1951—Mrs. Lema Moulton Smith, Pasadena—Wynn Rogers
1952—Helen Tibbitts, Alhambra, Calif.—Wynn Rogers

OTHER BADMINTON CHAMPIONS

Men's world team (Thomas Cup)—Malaya beat the United States, 7 to 2, in final.

All-England

Singles—Wong Peng Soon, Malaya
 Women's singles—Fru. Tonny Ahm, Denmark
 Doubles—Eddy and David Choong, Malaya
 Women's doubles—Fru. Tonny Ahm—Aase Jacobsen, Denmark
 Mixed doubles—Paul Helm—Tonny Ahm, Denmark

Canadian

Singles—Don Smythe, Toronto
 Women's singles—Marg Mapp, Montreal
 Doubles—Don Smythe—Bud Porter, Toronto
 Women's doubles—Barbara Ince—Joan Warren, Toronto
 Mixed doubles—Bud Porter—Edith Marshall, Toronto

United States

Veterans' doubles—Fred Fullin, Norwalk, Conn.—Howard Holman, Fresno, Calif.
 Boys' singles—Jack Chrisman, Jr., Burbank, Calif.
 Girls' singles—Judy Devlin, Baltimore
 Boys' doubles—Dean Maury, Manhattan Beach, Calif.—Jack Chrisman, Jr.
 Girls' doubles—Linda Cobb, Weston, Mass.—Judy Devlin
 Mixed doubles—Joan Gibbs, Pasadena, Calif.—Jack Chrisman, Jr.

HORSESHOE PITCHING, 1952

World Title Tournaments

(At Murray, Utah)

FINAL STANDING OF THE LEADERS

	W.	L.
Fernando Isais, Los Angeles...	24	1
Ted Allen, Boulder, Colo...	32	3
Casey Jones, Waukesha, Wis...	32	3
Marines Tamboer, Wichita, Kan...	29	6
Don Titcomb, San Jose, Calif...	28	7
James Johnson, Covington, Ky...	27	8
Dean Brown, South Gate, Calif...	27	8
Roy Getchell, Tigard, Oreg...	25	10
Louis Dean, Pomona, Calif...	23	12
Alvin Gandy, Topeka, Kan...	23	12

WOMEN

Sarah Byers, Portland, Oreg...	7	0
Katie Gregson, Crestline, Calif...	6	1
Anna Lindquist, Morgantown, W. Va...	5	1

HANDBALL, 1952

A. A. U.-U. S. H. A. Champions

FOUR-WALL

Singles—Victor Hershkovitz, Brooklyn
 Doubles—Frank Coyle—Bill Baler, Chicago
 Senior doubles—Robert Kendler—Ray Laseer, Chicago

A. A. U. Champions

One-wall singles—Victor Hershkovitz
 One-wall doubles—Irving Kirzner—George Andrews, Brooklyn

Y. M. C. A. Champions

Four-wall singles—Ken Schneider, Chicago
 Four-wall doubles—Frank Coyle—Bill Baler, Chicago

FENCING

Source: Amateur Fencers League of America.

NATIONAL CHAMPIONS

Year	Foil	Épée	Saber	Women's foil
1892	W. S. O'Connor	B. F. O'Connor	R. O. Haubold	
1893	W. T. Heintz	G. M. Hammond	G. M. Hammond	
1894	C. G. Bothner	R. O. Haubold	G. M. Hammond	
1895	A. V. Z. Post	C. G. Bothner	C. G. Bothner	
1896	G. Kavanaugh	A. V. Z. Post	C. G. Bothner	
1897	C. G. Bothner	C. G. Bothner	C. G. Bothner	
1898	No competition			
1899	G. Kavanaugh	M. Diaz	G. Kavanaugh	
1900	F. Townsend	W. D. Lyon	J. L. Erving	
1901	C. Tatham	C. Tatham	A. V. Z. Post	
1902	J. P. Parker	C. Tatham	A. V. Z. Post	
1903	F. Townsend	C. Tatham	A. V. Z. Post	
1904	C. G. Bothner	C. G. Bothner	A. G. Anderson	
1905	C. G. Bothner	W. S. O'Connor	K. B. Johnson	
1906	S. D. Breckinridge	W. Grebe	A. G. Anderson	
1907	C. Waldbott	W. D. Lyon	A. G. Anderson	
1908	W. L. Bowman	P. Benzenberg	G. W. Postgate	
1909	O. A. Dickinson	A. De La Poer	A. E. Sauer	
1910	G. K. Bainbridge	A. De La Poer	J. T. Shaw	
1911	G. H. Breed	G. H. Breed	A. G. Anderson	
1912	S. Hall	A. V. Z. Post	C. A. Bill	A. Baylis
1913	P. J. Meylan	A. E. Sauer	A. G. Anderson	Mrs. W. H. Dewar
1914	S. D. Breckinridge	F. W. Allen	W. Von Blijenburgh	M. Stimson
1915	O. A. Dickinson	J. A. MacLaughlin	S. Hall	J. Pyle
1916	A. E. Sauer	W. H. Russell	S. Hall	Mrs. C. H. Voorhees
1917	S. Hall	L. G. Nunes	A. S. Lyon	F. Walton
1918	No competition			
1919	S. Hall	W. H. Russell	A. S. Lyon	No competition
1920	S. Hall	R. W. Dutcher	S. Hall	A. Gehrig
1921	F. W. Honeycutt	C. R. McPherson	C. R. McPherson	A. Gehrig
1922	H. M. Raynor	L. G. Nunes	L. G. Nunes	A. Gehrig
1923	R. Peroy	G. C. Calnan	L. M. Schoonmaker	A. Gehrig
1924	L. G. Nunes	L. G. Nunes	J. E. Gignoux	Mrs. C. H. Hopper
1925	G. C. Calnan	W. H. Russell	J. Vince	Mrs. L. M. Schoonmaker
1926	G. C. Calnan	L. G. Nunes	L. G. Nunes	Mrs. L. M. Schoonmaker
1927	G. C. Calnan	H. Van Buskirk	N. Muray	S. Stern
1928	G. C. Calnan	G. C. Calnan	N. Muray	M. Lloyd
1929	J. L. Levis	F. S. Righeimer	L. G. Nunes	Mrs. L. M. Schoonmaker
1930	G. C. Calnan	M. Pasche	N. C. Armitage	Mrs. H. Van Buskirk
1931	G. C. Calnan	M. A. de Capriles	J. R. Huffman	M. Lloyd
1932	J. L. Levis	L. G. Nunes	J. R. Huffman	D. Locke
1933	J. L. Levis	G. M. Heiss	J. R. Huffman	D. Locke
1934	H. V. Alessandrini	G. M. Heiss	N. C. Armitage	H. Mayer
1935	J. L. Levis	T. J. Sands	N. C. Armitage	H. Mayer
1936	H. V. Alessandrini	G. M. Heiss	N. C. Armitage	Mrs. J. de Tuscan
1937	J. L. Levis	T. J. Sands	J. R. Huffman	H. Mayer
1938	D. Every	J. R. de Capriles	J. R. Huffman	H. Mayer
1939	N. Lewis	L. Tingley	N. C. Armitage	H. Mayer
1940	D. Every	F. Selbert	N. C. Armitage	H. Mroczkowska
1941	D. Cetrulo	G. M. Heiss	N. C. Armitage	H. Mayer
1942	W. Dow	H. Santos	N. C. Armitage	H. Mayer
1943	W. Dow	R. Driscoll	N. C. Armitage	H. Mroczkowska
1944	A. Snyder	M. A. de Capriles	T. Nyilas	M. Dalton
1945	D. Every	M. Gilman	N. C. Armitage	M. Cerra
1946	J. R. de Capriles	A. Wolff	T. Nyilas	H. Mayer
1947	Dean Cetrulo	James Strauch	James Flynn	Mrs. Helena Dow
1948	Nathaniel Lubell	Norman Lewis	Dean Cetrulo	Mrs. Helena Dow
1949	Daniel Bukantz	Norman Lewis	Umberto Martino	Polly Craus
1950	Silvio Giolito	Norman Lewis	Tibor Nyilas	Janice-Lee York
1951	Silvio Giolito	Jose de Capriles	Tibor Nyilas	Janice-Lee York
1952	Daniel Bukantz	Abelardo Menendez	Tibor Nyilas	Mrs. Maxine Mitchell

U. S. TEAM FENCING CHAMPIONS, 1952

3-weapon—Salle Santelli, New York (Albert Axelrod, foil; Ralph Goldstein, épée; George Worth, saber)

Foil—Salle Santelli (Allan Kwartler, Albert Axelrod, Leonard Turk)

Épée—Northern Ohio, Cleveland (William Durrett, Howard Fried, Donald S. Thompson, Walter Henry)

Saber—Salle Santelli (Dr. Tibor Nyilas, Allan Kwartler, Alex Trevas, Sol Gorlin)

WOMEN'S INTERCOLLEGIATE

Individual—Anne Drungis, Hunter

Team—Hunter

SOCCER

Source: Flannery News Bureau of New York.

National Challenge Cup Winners

Emblematic of United States
Championship.(Senior amateur and professional events eligible for
tournaments.)

- 1914 Brooklyn (N. Y.) Field Club
 1915 Bethlehem (Pa.) Steel Co. F. C.
 1916 Bethlehem (Pa.) Steel Co. F. C.
 1917 Fall River (Mass.) Rovers
 1918 Bethlehem (Pa.) Steel Co. F. C.
 1919 Bethlehem (Pa.) Steel Co. F. C.
 1920 Ben Miller F. C., St. Louis, Mo.
 1921 Robins Dry Dock F. C., Brooklyn, N. Y.
 1922 Scullin Steel F. C., St. Louis, Mo.
 1923 Paterson (N. J.) F. C.
 1924 Fall River (Mass.) F. C.
 1925 Shawsheen S. C., Andover, Mass.
 1926 Bethlehem (Pa.) Steel Co. F. C.
 1927 Fall River (Mass.) F. C.
 1928 New York Nationals S. C.
 1929 Hakoah Ail-Stars, New York
 1930 Fall River (Mass.) F. C.
 1931 Fall River (Mass.) F. C.
 1932 New Bedford (Mass.) F. C.
 1933 Stix, Baer & Fuller F. C., St. Louis, Mo.
 1934 Stix, Baer & Fuller F. C., St. Louis, Mo.
 1935 Central Breweries S. C., St. Louis, Mo.
 1936 First German American S. C., Philadelphia
 1937 New York Americans S. C.
 1938 Sparta A. B. A., Chicago, Ill.
 1939 St. Mary's Celtic S. C., New York
 1940 No official champion*
 1941 Pawtucket (R. I.) F. C.
 1942 Gallatin S. C., Pittsburgh
 1943 Brooklyn (N. Y.) Hispano S. C.
 1944 Brooklyn (N. Y.) Hispano S. C.
 1945 Brookhattan S. C., New York
 1946 Vikings, Chicago
 1947 Ponta Delgada F. C., Fall River, Mass.
 1948 Joe Simpkins S. C., St. Louis, Mo.
 1949 Morgan (Pa.) S. C.
 1950 Joe Simpkins S. C., St. Louis, Mo.
 1951 German-Hungarian S. C., New York
 1952 Harmarville (Pa.) S. C.

* Finalists: Baltimore (Md.) S. C. and Sparta A. B. A., Chicago, Ill.

39th U. S. Title for Stella Walsh

Stella Walsh, representing the Dreyer Athletic Club of Berkeley, Calif., won her third consecutive National A. A. U. pentathlon title in 1952 and set a world record by scoring 2,183 points at Deer Park, Texas. The triumph ran Miss Walsh's total of United States championships to thirty-nine. In twenty-five years of competition Miss Walsh has won thirty-nine United States championships and broken sixty-six records.

Canadian Tennis Champions, 1952

Singles—Dick Savitt, Orange, N. J.
 Women's singles—Melita Ramirez, Mexico
 Doubles—Kurt Nielsen, Denmark—Dick Savitt
 Women's doubles—Dorris Ell, Toronto—Melita Ramirez

National Amateur Challenge
Cup Winners

- 1923 No official champion*
 1924 Fleisher Yarn F. C., Philadelphia
 1925 Toledo (Ohio) F. C.
 1926 Defenders F. C., New Bedford, Mass.
 1927 Heidelberg (Pa.) F. C.
 1928 No official champion†
 1929 Heidelberg (Pa.) F. C.
 1930 Raffles F. C., Fall River, Mass.
 1931 Goodyear F. C., Akron, Ohio
 1932 Shamrock S. C., Cleveland, Ohio
 1933 German American S. C., Philadelphia
 1934 German American S. C., Philadelphia
 1935 W. W. Riehl S. C., Castle Shannon, Pa.
 1936 First German S. C., Brooklyn, N. Y.
 1937 Highlander F. C., Trenton, N. J.
 1938 Ponta Delgada F. C., Fall River, Mass.
 1939 St. Michael's A. C., Fall River, Mass.
 1940 Morgan-Strasser S. C., Morgan, Pa.
 1941 Fall River (Mass.) S. C.
 1942 Fall River (Mass.) S. C.
 1943 Morgan-Strasser S. C., Morgan, Pa.
 1944 Eintracht S. C., New York
 1945 Eintracht S. C., New York
 1946 Ponta Delgada F. C., Fall River, Mass.
 1947 Ponta Delgada F. C., Fall River, Mass.
 1948 Ponta Delgada F. C., Fall River, Mass.
 1949 Elizabeth (N. J.) Sport Club
 1950 Ponta Delgada F. C., Fall River, Mass.
 1951 German-Hungarian S. C., New York
 1952 St. Louis Raiders

* Medals to semifinals: Fleisher Yarn F. C., Philadelphia; Roxbury (Mass.) F. C.; Jeannette (Pa.) F. C.; Swedish American A. A., Chicago, Ill. † Finalists: Powers-Hudson-Essex F. C., Fall River, Mass.; and Swedish American A. C., Detroit, Mich.

BRITISH SOCCER CHAMPIONS, 1952

Source: Jim Kelly, 2889 Bainbridge Ave., New York 58, N. Y.

International—England and Wales (tie)

English

League (Division I)—Manchester United
 League (Division II)—Sheffield Wednesday
 League (Division III, South)—Plymouth Argyle
 League (Division III, North)—Lincoln City
 Cup—Newcastle United

Scottish

League (Division "A")—Hibernians
 League (Division "B")—Clyde
 Cup—Motherwell

Welsh

League (Division I, South)—Merthyr Tydfil
 League (Division I, North)—Pwllheli & District
 Cup—Rhyi

Irish

League—Glenavon Cup—Ards

IRISH CHAMPIONS, 1952

Gaelic Football—Cavan
 Hurling—Cork

ICE (FIGURE) SKATING

Source: Art Goodfellow, Editor, *National Ice Skating Guide*, 110 East 42d St., New York 17, N. Y.

WORLD CHAMPIONS

Year	Men	Women
1896	Gilbert Fuchs, Germany	
1897	Gustav Hugel, Austria	
1898	H. Grenander, Sweden	
1899	Gustav Hugel, Austria	
1900	Gustav Hugel, Austria	
1901	Ulrich Salchow, Sweden	
1902	Ulrich Salchow, Sweden	
1903	Ulrich Salchow, Sweden	
1904	Ulrich Salchow, Sweden	
1905	Ulrich Salchow, Sweden	
1906	Gilbert Fuchs, Germany	Madge Syers, England
1907	Ulrich Salchow, Sweden	Madge Syers, England
1908	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1909	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1910	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1911	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1912	Fritz Kachler, Austria	Meray Horvath, Hungary
1913	Fritz Kachler, Austria	Meray Horvath, Hungary
1914	Gosta Sandahl, Sweden	Meray Horvath, Hungary
1915-21	No competition	No competition
1922	Gillis Grafstrom, Sweden	Mrs. Szabo Plank, Austria
1923	Fritz Kachler, Austria	Mrs. Szabo Plank, Austria
1924	Gillis Grafstrom, Sweden	Mrs. Szabo Plank, Austria
1925	Willi Boeckl, Austria	Mrs. Szabo Plank, Austria
1926	Willi Boeckl, Austria	Mrs. Szabo Plank, Austria
1927	Willi Boeckl, Austria	Sonja Henie, Norway
1928	Willi Boeckl, Austria	Sonja Henie, Norway
1929	Gillis Grafstrom, Sweden	Sonja Henie, Norway
1930	Karl Schafer, Austria	Sonja Henie, Norway
1931	Karl Schafer, Austria	Sonja Henie, Norway
1932	Karl Schafer, Austria	Sonja Henie, Norway
1933	Karl Schafer, Austria	Sonja Henie, Norway
1934	Karl Schafer, Austria	Sonja Henie, Norway
1935	Karl Schafer, Austria	Sonja Henie, Norway
1936	Karl Schafer, Austria	Sonja Henie, Norway
1937	Felix Kaspar, Austria	Cecilia Colledge, England
1938	Felix Kaspar, Austria	Megan Taylor, England
1939	Graham Sharp, England	Megan Taylor, England
1940-46	No competition	No competition
1947	Hans Gerschwiler, Switzerland	Barbara A. Scott, Canada
1948	Richard Button, U. S.	Barbara A. Scott, Canada
1949	Richard Button, United States	Aja Vrzanova, Czechoslovakia
1950	Richard Button, U. S.	Aja Vrzanova, Czech.
1951	Richard Button, United States	Jeannette Altwegg, England
1952	Richard Button, U. S.	Jacqueline du Bief, France

OTHER CHAMPIONS, 1952

World

Pairs—Ria and Paul Falk, Germany
 Dance—Jean Westwood-Lawrence Demmy, England

European

Men—Hellmut Seibt, Austria
 Women—Jeannette Altwegg, England
 Pairs—Ria and Paul Falk, Germany

Canadian

Men—Peter Firstbrook, Toronto
 Women—Marlene Smith, Niagara Falls, Ont.
 Pairs—Frances Dafee-Norris Bowden, Toronto
 Men's junior—Charles Snelling, Toronto
 Women's junior—Rosemary Henderson, Winnipeg

UNITED STATES CHAMPIONS

Year	Men	Women
1914	Norman Scott	Theresa Weld
1915-17	No competition	No competition
1918	Nathaniel Niles	Mrs. R. S. Beresford
1919	No competition	No competition
1920	Sherwin Badger	Theresa Weld
1921	Sherwin Badger	Theresa Blanchard
1922	Sherwin Badger	Theresa Blanchard
1923	Sherwin Badger	Theresa Blanchard
1924	Sherwin Badger	Theresa Blanchard
1925	Nathaniel Niles	Beatrice Loughran
1926	C. I. Christenson	Beatrice Loughran
1927	Nathaniel Niles	Beatrice Loughran
1928	Roger Turner	Maribel Y. Vinson
1929	Roger Turner	Maribel Y. Vinson
1930	Roger Turner	Maribel Y. Vinson
1931	Roger Turner	Maribel Y. Vinson
1932	Roger Turner	Maribel Y. Vinson
1933	Roger Turner	Maribel Y. Vinson
1934	Roger Turner	Suzanne Davis
1935	Robin Lee	Maribel Y. Vinson
1936	Robin Lee	Maribel Y. Vinson
1937	Robin Lee	Maribel Y. Vinson
1938	Robin Lee	Joan Tozzer
1939	Robin Lee	Joan Tozzer
1940	Eugene Turner	Joan Tozzer
1941	Eugene Turner	Jane Vaughn
1942	Bobby Specht	Jane V. Sullivan
1943	Arthur R. Vaughn, Jr.	Gretchen Merrill
1944	Omitted	Gretchen Merrill
1945	Omitted	Gretchen Merrill
1946	Richard Button	Gretchen Merrill
1947	Richard Button	Gretchen Merrill
1948	Richard Button	Gretchen Merrill
1949	Richard Button	Yvonne Sherman
1950	Richard Button	Yvonne Sherman
1951	Richard Button	Sonya Klopfer
1952	Richard Button	Tenley Albright

OTHER U. S. CHAMPIONS, 1952

Pairs—Karol and Peter Kennedy, Colorado Springs, Colo.
 Gold dance—Michael McGean-Lois Waring, Baltimore
 Silver dance—Mr.-Mrs. Rogers Chambers, Buffalo, N. Y.

JUNIOR

Men—Ronald Robertson, Colorado Springs
 Women—Carol Heiss, New York
 Pairs—Sharon Choate-Richard Bromley, Seattle

NOVICE

Men—Tim Brown, Baltimore
 Women—Mary Ann Dorsey, St. Paul

Eastern States

Men—William T. Lemmons, Jr., Philadelphia
 Women—Carol Heiss, New York
 Pairs—Carol Johns-Jack Jost, Baltimore
 Dance—Michael McGean-Lois Waring, Baltimore

Midwestern

Men—Ronald Robertson, Colorado Springs
 Women—Betty Lynne Stogner, Colorado Springs
 Pairs—Patsy Ann Buck-Martin P. Coonon, Jr., St. Paul
 Dance—Eleanor Williams-James Sanderfur, Chicago

Pacific Coast

Men—Armando Rodriguez, Sacramento, Calif.
 Women—Patricia Firth, Tacoma, Wash.
 Pairs—Barbara Ziem-Armando Rodriguez, Sacramento
 Dance—Kristina Hunting, Pasadena, Calif.
 Thomas Sherritt, Los Angeles

ICE (SPEED) SKATING

WORLD RECORDS

Source: International Skating Union (I.S.U.).

MEN

Meters	Time	Recordholder and country	Where made	Date
500	0:41.8	Hans Engnestangen, Norway	Davos, Switz.	Feb. 5, 1938
1,000	1:28.4	Clas Thunberg, Finland	Davos, Switz.	Jan. 11, 1930
1,500	2:13.8	Hans Engnestangen, Norway	Davos, Switz.	Jan. 29, 1930
3,000	4:45.7	Ake Seyffarth, Sweden	Davos, Switz.	Feb. 3, 1942
5,000	8:07.3	Hjalmar Andersen, Norway	Trondheim, Norway	Jan. 13, 1951
10,000	16:57.4	Hjalmar Andersen, Norway	Davos, Switz.	Feb. 6, 1949

WOMEN

500	0:46.4	Laila Schou-Nilsen, Norway	Davos, Switz.	Jan. 30, 1937
1,000	1:36.8	Sofja Kondakowa, U.S.S.R.	Medeo, U.S.S.R.	Feb. 5, 1951
1,500	2:29.5	Marija Issakowa, U.S.S.R.	Medeo, U.S.S.R.	Feb. 12, 1951
3,000	5:22.2	Olga Akitjowa, U.S.S.R.	Medeo, U.S.S.R.	Feb. 16, 1951
5,000	9:10.7	Yatjana Kareina, U.S.S.R.	Medeo, U.S.S.R.	Feb. 12, 1951

NATIONAL SENIOR AMATEUR RECORDS

(Made in competition)

Source: Amateur Skating Union of the United States.

MEN'S OUTDOOR

Event	Time	Holder	Place	Date
220 yd...	18.1	Robert Fitzgerald	Minneapolis	1/10/43
440 yd...	35.4	Charles Gorman	Lake Placid	2/14/27
	35.4	Ken Barthelomew	St. Paul	1/25/42
	35.4	Robert Fitzgerald	Minneapolis	2/15/42
880 yd...	1:14.2	Robert Fitzgerald	Minneapolis	1/7/45
1/4 mi...	1:55.8	Clas Thunberg	Saranac Lake	2/15/26
1 mi...	2:38.2	Clas Thunberg	Lake Placid	2/12/28
*1 mi...	2:29.7	Del Lamb	Oslo	2/19/48
2 mi...	5:33.8	Eddie Schroeder	Minneapolis	1/30/34
3 mi...	8:19.6	Ross Robinson	Lake Placid	2/14/30
5 mi...	14:30.4	Ross Robinson	Lake Placid	2/12/27

* Made on 400-meter track in Norway.

WOMEN'S INDOOR

FOR TRACKS 12 LAPS AND UNDER

220 yd...	21.6	Dot Franey	St. Paul	2/15/36
1/4 mi...	31.0	Dot Franey	St. Louis	2/25/33
440 yd...	41.6	Dot Franey	St. Paul	2/16/36
880 yd...	1:27	Leila B. Potter	Pittsburgh	3/6/26
1/4 mi...	2:18.1	Kit Klein	Chicago	2/2/35
1 mi...	3:15.6	Maddy Horn	Chicago	4/1/38

FOR TRACKS 13 LAPS AND OVER

440 yd...	45.2	L. Sabbe	Colo. Springs	4/23/49
1/2 mi...	1:33.8	B. Marchetti	Colo. Springs	2/18/50
3/4 mi...	2:26.7	B. Marchetti	Colo. Springs	2/18/50
1 mi...	3:23	B. Marchetti	Colo. Springs	2/18/50

WOMEN'S OUTDOOR

220 yd...	20.2	Maddy Horn	Saranac Lake	2/11/39
440 yd...	39.4	L. Neitzel	Minneapolis	2/3/29
880 yd...	1:25.9	Maddy Horn	Escanaba*	1/13/40
1/4 mi...	2:17	Dot Franey	Minneapolis	1/16/37
1 mi...	3:06.1	Maddy Horn	Oconomowoc†	1/24/37

* Michigan. † Wisconsin.

MEN'S INDOOR

FOR TRACKS 12 LAPS AND UNDER

Event	Time	Holder	Place	Date
220 yd...	18	F. Robson	Boston	1/13/11
1/4 mi...	23.8	C. Gorman	St. John*	3/1/27
440 yd...	36.8	C. Gorman	St. John	2/27/25
880 yd...	1:15.6	B. O'Sickey	Pittsburgh	3/1/18
1/4 mi...	2:00.4	P. Johnston	Cleveland	3/2/28
1 mi...	2:41.2	Morris Wood-		
		F. Robson	Pittsburgh	2/13/04
1 1/2 mi...	4:25	Edmund Lamy	Cleveland	1/27/10
2 mi...	5:54.8	R. Heckenbach	St. Paul	1/30/37
3 mi...	8:58.8	P. Johnston	Pittsburgh	2/19/27
4 mi...	13:41.8	Joe Moore	Brooklyn	2/7/27
5 mi...	15:42.2	F. Stack	Chicago	2/8/30

* New Brunswick, Canada.

FOR TRACKS 13 LAPS AND OVER

440 yd...	40.3	M. Traiteil	Colo. Springs	4/23/49
880 yd...	1:21.7	T. G. Hutchinson	Colo. Springs	4/23/49
1/4 mi...	2:06.2	E. Babayan	Colo. Springs	2/18/50
1 mi...	3:00.9	E. Babayan	Colo. Springs	2/18/50
2 mi...	6:20.8	A. Broadhurst	Colo. Springs	2/18/50

1952 CHAMPIONSHIPS

World—Men

(At Hamar, Norway, March 1-2)

All-around—Hjalmar Andersen, Norway	193.722 pts.
500 meters—Kenneth Henry, United States	0:43.4
1,500 meters—Wim van der Voort, Holland	2:21.3
5,000 meters—Hjalmar Andersen	8:16.8
10,000 meters—Hjalmar Andersen	17:03.5

World—Women

(At Kokkola, Finland, March 1-2)

All-around—Lidia Selichowa, U. S. S. R.	217.813 pts.
500 meters—Natalia Dontshenko, U. S. S. R.	0:50.4
1,000 meters—Lidia Selichowa	1:43.0
3,000 meters—Marija Anikanowa, U. S. S. R.	5:41.5
5,000 meters—Rimma Zhukowa, U. S. S. R.	9:32.4

European

(At Osterund, Sweden, Feb. 2-3)

All-around—Hjalmar Andersen, Norway	196.347 pts.
500 meters—Lasse Parkkinen, Finland	0:44.8
1,500 meters—Wim van der Voort, Holland	2:23.3
5,000 meters—Hjalmar Andersen	8:23.6
10,000 meters—Hjalmar Andersen	17:30.4

Eastern States

Men—Art Longjo, Pittsfield, Mass.
Women—Aldrina Lebel, Troy, N. Y.

OTHER 1952 SPEED SKATING CHAMPIONS

North American Outdoor

(At Alpena, Mich., Feb. 9-10)

SENIOR MEN

220 yd.—Terry Browne, Detroit.....	0:19.0
440 yd.—Ray Blum, Nutley, N. J.....	0:36.5
880 yd.—Terry Browne.....	1:47.5
3/4-mile—Art Longsjö, Pittsfield, Mass.....	2:14.2
Mile—Art Longsjö.....	3:56.8
2 miles—Ray Blum.....	6:19.2
5 miles—Jim Campbell, Chicago.....	15:20.1
Co-champions—Browne, Longsjö, Blum.....	80 pts. each

SENIOR WOMEN

220 yd.—Barbara Marchetti, Detroit.....	0:21.3
440 yd.—Doreen McLeod, Edmonton.....	0:42.6
880 yd.—Barbara Marchetti.....	2:02.8
3/4-mile—Doreen McLeod.....	2:59.7
Mile—Barbara Marchetti.....	3:33.0
Co-champions—Miss Marchetti and Miss McLeod.....	120 pts. each

North American Indoor

(At East Lansing, Mich., March 28-29)

(16-lap Track)

SENIOR MEN

440 yd.—Mario Trafelli, Detroit.....	*0:39.3
880 yd.—Omer DeSchepper, Detroit.....	1:21.8
3/4-mile—Omer DeSchepper.....	2:07.4
Mile—Ray Blum, Nutley, N. J.....	*2:54.3
2 miles—Edgar Dame, Revere, Mass.....	*6:02.3
Champion—Ray Blum.....	80 pts.

SENIOR WOMEN

440 yd.—Janet Bachman, Wilmington, Mass.....	*0:44.5
880 yd.—Janet Bachman.....	*1:32.3
3/4-mile—Janet Bachman.....	*2:25.2
Mile—Pat Underhill, Edmonton, Alberta ..	3:24.5
Champion—Janet Bachman.....	110 pts.

* Record.

Y. M. C. A. CHAMPIONS, 1952

Source: Harold T. Friermood, Secretary, Health and Physical Education, National Council Y. M. C. A.'s.

Basketball—High Point, N. C.

VOLLEY BALL

Senior—Hollywood, Calif.

Veterans—Jamaica, N. Y.

FOUR-WALL HANDBALL

Senior singles—Ken Schneider, Chicago

Senior doubles—Bill Baier-Frank Coyle, Chicago

Junior singles—Don Farley, Germantown, Pa.

Junior doubles—William Frith-Don Farley, Germantown

SWIMMING

50-yd. free—William Myers, Norristown, Pa.	0:24.2
100-yd. free—Frank Anastas, Bridgeport, Conn.....	0:55.3
220-yd. free—Frank P. Nauss, York, Pa.....	2:14.0
440-yd. free—Frank P. Nauss.....	4:49.6
1,500-meter free—Frank P. Nauss.....	19:35.0
100-yd. back—Michael Andrews, York, Pa.....	1:03.8
200-yd. back—George Harvey, Canton, Ohio ..	2:20.8
100-yd. breast—J. Ronald Gainsford, Pitts- burgh.....	1:01.4
200-yd. breast—J. Ronald Gainsford.....	2:24.4
150-yd. medley—Caesio Cirigliano, Brooklyn ..	1:38.8
300-yd. medley relay—Brooklyn Central (Mc- Carthy, Silverstein, Manning).....	3:08.4
400-yd. free-style relay—Brooklyn Central (McCarthy, Apmann, Tieman, Zwilm).....	3:43.7
1-meter dive—Frank Fraunfelte, Can- ton.....	364.60 pts.
Team—Brooklyn Central.....	40 pts.

WEIGHT LIFTING

Body weight	Pounds
123 1/4 lb.—Paul Pastore, Erie, Pa.....	570
132 lb.—James Kazuhhrra, Chicago.....	625
148 3/4 lb.—Nick Cavilla, Detroit.....	685
165 lb.—James Millikan, Muncie, Ind.....	770
181 1/4 lb.—Robert Wagner, Detroit.....	730
198 lb.—Jerome Schemansky, Detroit.....	815
210 lb.—Norbert Schemansky, Detroit.....	975
Team—Northern Branch, Detroit.....	21 pts.

BOYS' ATHLETIC ACHIEVEMENT

Individual—Terry Funkhouser, York, Pa.....	492 pts.
Team—Washington, Pa.....	4,596 pts.

United States Outdoor

(At St. Paul, Minn., Jan. 26-27)

SENIOR MEN

220 yd.—Ken Bartholomew, Minneapolis... ..	0:19.4
440 yd.—Ken Bartholomew.....	0:37.1
880 yd.—Art Longsjö, Pittsfield, Mass.....	1:36.0
3/4-mile—Ken Bartholomew.....	2:14.2
Mile—Art Longsjö.....	3:20.4
2 miles—Ken Bartholomew.....	6:14.8
5 miles—Art Longsjö.....	17:43.4
Champion—Ken Bartholomew.....	160 pts.

SENIOR WOMEN

220 yd.—Barbara Marchetti, Detroit.....	0:23.0
440 yd.—Barbara Marchetti.....	0:44.7
880 yd.—Jeanie Robinson, Detroit.....	1:49.8
3/4-mile—Barbara Marchetti.....	2:28.8
Mile—Barbara Marchetti.....	3:32.9
Champion—Barbara Marchetti.....	120 pts.

LACROSSE

1952 National Champions

Open—Mt. Washington Club, Baltimore

Intercollegiate—Virginia and Rensselaer Polytechnic Institute

North-South Game Record

1940—North 6, South 5	1947—North 15, South 3
1941—South 7, North 6	1948—North 11, South 6
1942—North 6, South 3	1949—South 11, North 6
1943—South 9, North 5	1950—North 12, South 8
1944-45—No games	1951—North 12, South 11
1946—North 14, South 14	1952—South 15, North 7

1952 All-America Selections

FIRST TEAM—Attack: Gordon Jones (Virginia); Lester Eustace (R. P. I.); Emil Budnitz (Johns Hopkins). Midfield: Avery Blake, Jr. (Swarthmore); K. G. Miller (Princeton); Albert Lorenzen (Army). Defense: William Hubbell (Maryland); Robert Bickel (Duke); Wallace Beneville (Rutgers). Goalie: William Larash (Maryland).

SECOND TEAM—Attack: Joseph Austin (Army); Richard Godine (Virginia); Edward McNicholas (Johns Hopkins). Midfield: Thomas Compton (Virginia); Bruce Yancey (Syracuse); Lawrence Peacock (Duke). Defense: William Sinclair (Virginia); Lloyd Rhiddlehoover (Army); Robert MacDonald (Navy). Goalie: Donald Bafford (Duke).

THIRD TEAM—Attack: Kenneth Martin (R. P. I.); Malcolm McVeigh (Rutgers); Robert Burch (Navy). Midfield: Howard Flah (Princeton); Lee Letizia (Hobart); Richard Young (Drexel). Defense: John Henry (Penn State); Thomas Bloomer (Dartmouth); Robert Shoop (R. P. I.). Goalie: John Echeandia (Syracuse).

Wittenberg Skein Broken

Henry Wittenberg, New York City police sergeant who had won about 400 successive amateur wrestling matches since 1938, had his string snapped when he was beaten by Dale Thomas of East Lansing, Mich., in the 191-pound class in the 1952 United States Olympic trials at Ames, Iowa, last April.

Browne Keeps Crown, Sets Mark

Terrance Browne of Detroit retained his world barrel-jumping championship and smashed his universal record by clearing 15 kegs for a distance of 28 feet 3 inches at the Grossinger (N. Y.) Country Club rink on Jan. 12, 1952. Browne's previous mark, made at the same place in 1951, was a 15-barrel leap of 27 feet 10½ inches.

WORLD ALL-TACKLE FISHING RECORDS

Caught with Rod and Reel in Salt Water

Source: International Game Fish Association, Francesca LaMonte, Secretary.

Species	Lb., oz.	Length	Girth	Where caught	Year	Angler
Albacore	66-4	.....	.....	Catalina, California	1912	Frank Kelly
Amberjack	119-8	63½"	46½"	Rio de Janeiro, Brazil	1952	C. de Mello Cunha
Barracuda	103-4	66"	31½"	West End, Bahamas	1932	C. E. Benet
Bass, Calif. White Sea	77-4	61"	33"	San Diego, Calif.	1950	H. P. Bledsoe
Bass, Channel	83	52"	29"	Cape Charles, Va.	1949	Zack Waters, Jr.
Bass, Giant Black Sea	483	87"	73"	Coronado Is., Calif.	1951	R. E. De Groff
Bass, Sea	8	22"	18"	Nantucket Sound, Mass.	1951	H. R. Rider
Bass, Giant Sea	551	100"	.....	Galveston Bay, Texas	1937	G. Pangarakis
Bass, Striped	73	60"	30½"	Vineyard Sound, Mass.	1913	C. B. Church
Blackfish (Tautog)	15-14	27½"	19½"	Seabright, N. J.	1951	Caleb Campbell
Bluefish	20	42"	19½"	Montauk, N. Y.	1951	Philip Chasin
Bonefish	16	38"	17½"	West Molokai, T. H.	1948	C. M. Cooke III
Bonito, Oceanic	39-15	39"	28"	Walker Cay, Bahamas	1952	F. Drowley
Cobia	102	70"	34"	Cape Charles, Va.	1938	J. E. Stansbury
Cod	57-8	56"	.....	Ambrose Lightship, N. Y.	1949	J. Rzeszewicz
Dolphin	75-8	50"	.....	Mafia Channel, E. Africa	1950	A. Conan Doyle
Drum, Black	87-12	50½"	40"	Cape Charles, Va.	1952	F. J. Pennowell
Flounder, Sommer	20	37"	32"	Oak Beach, N. Y.	1948	P. H. Kessel
Kingfish (King Mackerel)	76-8	63"	31"	Bimini, Bahamas	1952	R. E. Maytag
Marlin, Blue	742	154½"	68"	Bimini, Bahamas	1949	Aksel Wichfield
Marlin, Pacific Black	1135	176"	72"	Cabo Blanco, Peru	1952	S. Kip Farrington, Jr
Marlin, Silver	618	138"	62"	Tahiti	1930	Zane Grey
Marlin, Striped	692	161"	.....	Balboa, California	1931	A. Hamann
Marlin, White	161	104"	33"	Miami, Florida	1938	L. F. Hooper
Permit	41	40½"	33"	Islamorada, Fla.	1951	E. J. Arnold
Pollack	23-6½	42"	23½"	Chatham, Mass.	1952	A. L. Hansen
Roosterfish	66	54½"	35"	Bahia de Los Angeles, Mexico	1949	W. R. Good
Salifish, Atlantic	123	44"	32½"	Walker Cay, Bahamas	1950	H. Teetor
Selfish, Pacific	275	114½"	37½"	Lapaz, Mexico	1951	A. Steinbaum
Sawfish	736	175"	.....	Galveston, Texas	1938	Gus Pangarakis
Shark, Mako	1000	144"	.....	Mayor Island, N. Z.	1943	B. D. H. Ross
Shark, Porbeagle	260	48"	68½"	Durban, S. Africa	1949	J. L. Daniel
Shark, Thresher	922	.....	.....	Bay of Islands, N. Z.	1937	W. W. Dowding
Shark, Tiger	1382	166"	93"	Sydney Heads, Australia	1939	Lyle Bagnard
Shark, White	2071	189"	98"	Cape Donnington, Australia	1952	J. Veitch
Snook (Robalo)	50-8	55"	.....	Batun Spillway, Canal Zone	1944	J. W. Anderson
Swordfish	860	165"	70"	Toconilla, Chile	1940	W. E. S. Tucker
Tarpon	247	89½"	.....	Panuco River, Mexico	1938	H. W. Sedgwick
Tuna, Albino	275	82"	56"	Cabo Blanco, Peru	1952	Alfred Glassell, Jr.
Tuna, Bluefin	977	116"	94½"	St. Ann Bay, Nova Scotia	1950	D. McL. Hodgson
Wahoo	133-8	83"	31"	Green Cay, Bahamas	1943	K. L. Ames, Jr.
Weakfish	17-8	46"	19"	Mullica River, N. J.	1944	A. Weisbecker, Jr.
Weakfish, Spotted	15-3	34½"	20½"	Fort Pierce, Fla.	1949	C. W. Hubbard
Yellowtail	90	59"	35½"	La Paz, Mexico	1948	F. Hickey

Caught with Rod and Reel in Fresh Water

Source: Field & Stream, 383 Madison Avenue, New York 17, N. Y.

Black Bass, Largemouth	22-4	32½"	28½"	Montgomery Lake, Ga.	1932	George W. Perry
Black Bass, Smallmouth	10-8	22½"	21½"	Wheeler Dam, Ala.	1950	Owen F. Smith
Bluegill (Sunfish)	4-12	15"	18½"	Ketona Lake, Ala.	1950	T. S. Hudson
Carp	55-5	42"	31"	Clearwater Lake, Minn.	1952	Frank J. Ledwein
Catfish, Channel	55	50"	27"	James River, S. D.	1949	Roy A. Groves
Muskellunge	69-11	63½"	31¼"	Chippewa Flowage, Wis.	1949	Louis Spray
Perch, Yellow	4-3½	.....	.....	Bordentown, New Jersey	1865	Dr. C. C. Abbot
Pickering, Eastern chain	9	30"	15"	Green Pond, N. J.	1948	Russell Kimble
Pike, Northern	46-2	52½"	25"	Sacandaga Reservoir, N. Y.	1940	Peter Dubuc
Pike, Walleyed	22-4	35½"	21"	Fort Erie, Ontario	1943	Patrick E. Noon
Salmon, Atlantic	79-2	.....	.....	Tanaely, Norway	1928	Henrik Henriksen
Salmon, Chinook	83	.....	.....	Umpqua River, Oregon	1910	F. R. Steel
Salmon, Landlocked	22-8	36"	.....	Sebago Lake, Maine	1907	Edward Blakely
Salmon, Silver	31	.....	.....	Cowichan Bay, B. C.	1947	Mrs. Lea Hallberg
Trout, Brook	14-8	.....	.....	Nipigon River, Ontario	1916	Dr. W. J. Cook
Trout, Brown	39-8	.....	.....	Loch Awa, Scotland	1866	W. Muir
Trout, Dolly Varden	32	40½"	29½"	Pend Oreille Lake, Idaho	1949	N. L. Higgins
Trout, Lake	63	47½"	.....	Lake Athapuskow, Manitoba	1930	Miss L. L. Hayes
Trout, Rainbow or Steelhead	37	40½"	28"	Pend Oreille Lake, Idaho	1947	Wes Hamlet
White Perch	4-12	19½"	13"	Messalonskee Lake, Maine	1949	Mrs. Earl Small

FLY AND BAIT CASTING

Source: L. S. Williams, Executive Secretary, National Association of Angling and Casting Clubs.

1952 National Championships

(At Peoria, Ill., Aug. 20-24)

Official Combined Champions

All-around—Charles Schall, St. Louis.....	—
All-distance—Charles Schall.....	3213 ft.
Distance baits—Charles Schall.....	2273 ft.
Distance flies—Jack Crossfield, San Francisco.....	999 ft.
All-accuracy—Bryant Black, Dallas.....	392 pts.
Accuracy baits—Bryant Black.....	195 pts.
Accuracy flies—Steve Aleshi, Kansas City, Mo.....	198 pts.

WOMEN

All-accuracy—Ronnie Miller, Kansas City, Mo.....	367 pts.
Accuracy baits—Doris Bright, Indianapolis.....	187 pts.
Accuracy flies—Kay Brodney, San Francisco, and Ronnie Miller (tie).....	187 pts.

JUNIORS

All-accuracy—Fred Mathis, Pasadena, Calif.....	384 pts.
Accuracy baits—Richard Hupp, St. Petersburg and Jackie Davis, Fort Worth (tie).....	193 pts.
Accuracy flies—Fred Mathis.....	200 pts.

Official Distance Events

	Avg. feet	Long cast
3/8-oz. bait—C. F. Forcade, St. Louis.....	336 2/3	349
5/8-oz. bait—Charles Schall.....	443	447
Trout fly—Jack Crossfield.....	155 1/3	165
Salmon fly—Jack Crossfield.....	177 1/3	185

Official Accuracy Events

	Pts.
Dry fly—Steve Aleshi.....	99
Wet fly—Roy Mabae, Anaheim, Calif.....	100
3/8-oz. bait—Bryant Black.....	97
5/8-oz. bait—Frank Halper, Chicago.....	100

WOMEN

Dry fly—Zelma Stevenson, Kansas City, Mo.....	94
Wet fly—Kay Brodney.....	96
3/8-oz. bait—Doris Bright.....	94
5/8-oz. bait—Dawn Strover, Cincinnati.....	96

JUNIORS

Dry fly—Fred Mathis.....	100
Wet fly—Fred Mathis.....	100
3/8-oz. bait—Richard Hupp.....	97
5/8-oz. bait—Edward Young, Wetumpka, Ala.....	98

Skish Events

Accuracy fly—Roy Mabae.....	95 pts.
Accuracy bait—Fred Sexauer, Jr., St. Louis.....	92 pts.
Distance fly—John Dieckmann, Paterson, N. J.....	148 1/3 avg., 158 long cast
Distance bait—John Dieckmann.....	257 1/3 avg., 274 long cast
Women's accuracy fly—Joan Salvato, Paterson, N. J.....	79 pts.
Women's accuracy bait—Zoe Marie Dvorak, St. Petersburg.....	54 pts.
Junior accuracy fly—Fred Mathis.....	92 pts.
Junior accuracy bait—Robert McCarty, St. Petersburg.....	78 pts.

Skish Combined Champions

All-around—Jon Tarantino, San Francisco.....	—
Accuracy—Jon Tarantino.....	161 pts.
Distance—John Dieckmann.....	1217 ft.
Women's accuracy—Joan Salvato.....	123 pts.
Junior accuracy—Mike Weenick, St. Petersburg, and Fred Mathis (tie).....	132 pts.

Five-Man Team Event

Gary (Ind.) Anglers Club.....	472 pts.
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Club Pennant

St. Louis Fly and Bait Casting Club.....	32 pts.
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World Records

Distance Events

	Feet
Trout fly (average)—Dick Miller, San Diego, Calif.....	176 3/4
Trout fly (long cast)—Dick Miller.....	183
Salmon fly (average)—Jimmy Green, San Francisco.....	198 3/4
Salmon fly (long cast)—Jimmy Green.....	206
3/4-oz. bait (average)—Clarence Anthes, Waukesha, Wis.....	359 3/4
3/4-oz. bait (long cast)—Clarence Anthes.....	385
3/4-oz. bait (average)—Charles Schall, St. Louis.....	443
3/4-oz. bait (long cast)—Charles Schall.....	447

Accuracy Events

	Pts.
—Frank Steel, Chicago	
Dry fly—Allan Childers, San Francisco	100
—Marvin Allen, Chicago	
Wet fly—Held by 31 casters.....	100
—S. G. Dennis, Chicago	
3/4-oz. bait—Adelma McDonald, Chicago	99
—Charles Sutphin, Indianapolis	
—J. H. Wine, Dayton, Ohio	
3/4-oz. bait—J. A. Halbleib, Louisville, Ky., and Frank Halper, Chicago (tie).....	100

Combined Events

All-accuracy—Bryant Black, Dallas.....	392 pts.
Accuracy flies—Charles Schall, St. Louis.....	199 pts.
Accuracy baits—Charles Sutphin.....	197 pts.
All-distance—Charles Schall.....	3213 ft.
Distance baits—Charles Schall.....	2273 ft.
Distance flies—Dick Miller.....	1091 ft.

Negro Tennis Champions, 1952

NATIONAL AMERICAN ASSOCIATION

Singles—George Stewart, Central State College	
Women's singles—Althea Gibson, New York	
Doubles—Eartha Jacquet-Jimmy McDaniels, Los Angeles	
Women's doubles—Roumania and Margaret Peters, Tuskegee, Ala.	
Mixed doubles—Dr. R. W. Johnson, Lynchburg, Va.—Althea Gibson	

WORLD TEAM SHOOTING CHAMPIONSHIPS, 1952

(Conducted by the International Shooting Union at Oslo, Norway)

	Pts.
Center-fire pistol—United States (Harry Reeves, Walter Walsh, Huclet Benner, William McMillan).....	2304
Free pistol—Sweden.....	2718
Silhouette pistol—United States (Benner, McMillan, Walter Davine, Reeves).....	2304

	Pts.
Smallbore rifle—Switzerland.....	1984
Free rifle—Switzerland.....	5540

NOTE—Individual winners included Harry Reeves of Detroit, center-fire pistol; Arthur Jackson, New York, prone smallbore rifle and English match rifle (the U. S. also won the English match team competition) and Col. C. T. Edwinson, Strategic Air Command, Austin, Texas, skert.

RIFLE AND PISTOL SHOOTING

Source: Paul B. Cardinal, National Rifle Association of America.

National Outdoor Small-Bore Rifle Records

The X count is used in most small-bore records to break ties. The X-ring on the target is a circle within the 10-ring and in a case where two or more competitors have the same point score, the one with the most X's is declared the winner. (m) Indicates metallic sight used. (a) Indicates any sight used.

INDIVIDUAL METALLIC SIGHTS

Dewar Course—W. B. Woodring.....	400-37X
40 shots, 50 yd.—Edward H. Cushing.....	400-39X
40 shots, 100 yd.—Peter Romcovitz.....	400-37X
40 shots, 50 m.—Arthur Cook.....	400-37X
40 shots, 50 m.—Peter Romcovitz.....	400-38X

INDIVIDUAL ANY SIGHTS

Dewar Course—George R. Handel.....	400-40X
40 shots, 50 yd.—Otto Kolb.....	400-40 5X
40 shots, 100 yd.—Edwin F. Chase.....	400-37X
40 shots, 50 m.—Jik Johnson.....	400-37X
40 shots, 50 m.—Erv Brehm.....	400-39X
40 shots, 50 m.—R. K. Moore.....	400-39X
40 shots, 50 m.—Jack Folk.....	400-39X

AGGREGATE

(40 shots at 50 yd., 100 yd., 50 meters,
and Dewar Course)

Metallic sights—Dave Carlson.....	1600-144X
Any sights—Peter Romcovitz.....	1600-138X
Total of both—Peter Romcovitz.....	3198-268X

FOUR-MAN TEAM (DEWAR COURSE)

Metallic sights—Phoenix Rod and Gun Club No. 1.....	1595-110X
Any sights—Capitol City R. C.....	1599-123X
Junior (m)—Apache Jr. R. C.....	1594-91X
Junior (a)—Pinwheel Jr. R. C.....	1579-75X
Women (m)—Los Angeles "Babes".....	1569-77X
Women (a)—Seattle Shooting Stars.....	1587-85X

INDIVIDUAL METALLIC SIGHTS (JUNIOR)

Dewar Course—Arthur Cook.....	400-32X
40 shots, 50 yd.—Joe Specht.....	400-36X
40 shots, 100 yd.—Richard W. Waters.....	400-23X
40 shots, 50 m.—Leonard Brewster.....	399-37X

INDIVIDUAL ANY SIGHTS (JUNIOR)

Dewar Course—Arthur Cook.....	400-32X
40 shots, 50 yd.—Charles Rodgers.....	400-38X
40 shots, 100 yd.—Rex Brewster.....	400-34X
40 shots, 50 m.—David Rosenberg.....	400-34X

INDIVIDUAL METALLIC SIGHTS (WOMEN)

Dewar Course—Elinor Bell.....	400-31X
40 shots, 50 yd.—Barbara Norton.....	400-36X
40 shots, 100 yd.—Viola E. Pollum.....	400-23X
40 shots, 50 m.—Anna Lou Barker.....	400-29X
40 shots, 50 m.—May E. Kell.....	400-29X
20 shots, 200 yd.—Elinor Bell.....	194-6X
20 shots, 200 yd.—Mrs. L. P. Bartlett.....	194-6X

INDIVIDUAL ANY SIGHTS (WOMEN)

Dewar Course—Adelaide McCord.....	400-34X
40 shots, 50 yd.—Gladys Reing.....	400-38X
40 shots, 100 yd.—Ruth Johnson.....	400-34X
40 shots, 50 m.—Betty Ingleright.....	400-37X

National Outdoor Pistol Records

(s)—Slow fire; (t)—timed fire; (r)—rapid fire.

INDIVIDUAL .22 CALIBER

50 yd. (s)—Harry Reeves.....	198
25 yd. (t)—Harry Reeves.....	200 + 80 10's
25 yd. (r)—Huelet L. Benner.....	200 + 25 10's
National Match Course— Harry Reeves.....	98, 100, 100-298

INDIVIDUAL CENTER FIRE (.38 CALIBER)

50 yd. (s)—Harry Reeves.....	198
25 yd. (t)—Harry Reeves.....	200 + 50 10's
25 yd. (r)—Emmett E. Jones.....	200
25 yd. (r)—J. E. Clark.....	200
25 yd. (r)—T. E. Barrier.....	200
25 yd. (r)—Phillip Roettinger.....	200
National Match Course—Alfred W. Hemming..	298
Camp Perry Course—Emmett E. Jones.....	299

INDIVIDUAL .45 CALIBER

50 yd. (s)—Huelet L. Benner.....	197
25 yd. (t)—U. O. Drexel.....	200 + 5 10's
25 yd. (r)—Harry Reeves.....	199
25 yd. (r)—J. N. Jagoda.....	199
National Match Course—M. W. Billing.....	295
National Match Course—H. L. Benner.....	295

INDIVIDUAL AGGREGATE

(Slow, timed, rapid and National Match Course)

.22 caliber—Huelet L. Benner.....	891
Center fire—Huelet L. Benner.....	885
.45 caliber—Huelet L. Benner.....	882
Three caliber—Huelet L. Benner.....	2644

NBPRP Matches, 1952

*The National Board for the Promotion of Rifle Practice is a board in the Department of the Army responsible for the training of civilians in the use of a service rifle.

NATIONAL TROPHY WINNERS

Pistol, individual—Capt. B. C. Curtis, U. S. Army.....	283
Pistol, team—U. S. Marines (Lt. T. R. Mitchell, Sgt. W. McMillan, Cpl. R. Schler, Capt. J. N. Jagoda).....	1116
Rifle, individual—Capt. Murvale O. Belson, U. S. Army.....	244-23V
Rifle, team—U. S. Army (Capt. M. O. Belson, Capt. H. Erickson, Lt. H. Voelcker, Lt. R. Brooks).....	942-63V

FOUR-MAN TEAM

(All on Camp Perry courses; not used since
Jan. 1, 1950)

.22 Nat'l Match Course—U. S. Treasury.....	1172
Center fire, National Match Course—Detroit Police.....	1165
.45 Nat'l Match—Marine Corps School.....	1157

INDIVIDUAL .22 CALIBER (WOMEN)

50 yd. (s)—Eather Sichter.....	190
25 yd. (t)—Gloria Norton.....	200
25 yd. (r)—Gloria Norton.....	198
National Match Course—Gloria Norton.....	296
Camp Perry Course—Gloria Norton.....	299

INDIVIDUAL CENTER FIRE (WOMEN)

50 yd. (s)—Gloria Norton.....	193
25 yd. (t)—Gloria Norton.....	199
25 yd. (r)—Virginia Fontanella.....	192
25 yd. (r)—Gloria Norton.....	192
National Match Course—Gloria Norton.....	291
Camp Perry Course—Gloria Norton.....	298

INDIVIDUAL .45 CALIBER (WOMEN)

50 yd. (s)—Maria Hulseman.....	184
25 yd. (t)—Gloria Norton.....	195
25 yd. (r)—Margaret Culbertson.....	188
National Match Course—Margaret Culbertson.....	280

1952 NATIONAL CHAMPIONS

Pistol—William T. Toney, Jr., El Paso, Texas.....	2604
Smallbore rifle—Robert Perkins, Fresno, Calif.....	3187
High-power rifle (service rifle)—M-1— Major Robert A. Dawson, Barstow, Calif.....	431-37V*
High-power rifle (match rifle)—Lt. Col. Walter Walsh, Arlington, Va.....	436-43V

*The V ring is a smaller bullseye within the bullseye and is used to break ties.

JUNIOR RIFLE

Smallbore—Charles Rodgers, Phoenix, Ariz.....	3177
High-power (match rifle)—Charles Rodgers.....	422-41V

WOMEN

Pistol—Maria Hulseman, Towson, Md.....	2446
Smallbore rifle—Betty Ingleright, Buchanan, Mich.....	3182
High-power rifle (match rifle)—Alice Bull, Seattle, Wash.....	427-26V

TRAPSHOOTING

Source: John F. X. Condon, Sports Publiety Director, New York Athletic Club.

Grand American Championships, 1952

(At Vandana, Ohio, Aug. 18-23)

GRAND AMERICAN HANDICAP

Men—Orval E. Voorhees, Grano Island, Nebr. (18 yd.)	98 x 100
Women—Marjorie Miller, Newton, Iowa (18 yd.)	91 x 100
Junior—David Broome, Keweenaw, Ill. (18 yd.)	92 x 100
Professional—Don Flewelling, Harvey, Ill. (25 ya.)	96 x 100

PRELIMINARY HANDICAP

Men—E. G. Beckley, Rock Falls, Ill. (21 yd.)	98 x 100
Women—Mrs. Dorothy Kohler, Tekamah, Nebr. (19 yd.)	97 x 100
Junior—Ronald Mesier, Fresno, Calif. (22 yd.)	96 x 100
Professional—Cliff Doughman, Morrow, Ohio (25 ya.)	96 x 100

CHAMPION OF CHAMPIONS

Men—Vic Keinders, Waukesha, Wis.	100 x 100
Women—Mrs. Julius Petty, Stuttgart, Ark.	97 x 100
Junior—George Genereux, Saskatoon, 98 x 100	

NORTH AMERICAN CLAY TARGET

Men—Rudy Etchen, Sna Valley, Idaho.	200 x 200
Women—Mrs. Frances King, Atlanta, Ga.	197 x 200
Junior—Robert Autrey, Jr., Atlanta, Ga.	197 x 200
Sub-junior—Ronald Person, Columbus, Nebr.	195 x 200
Professional—A. M. Perkins, Shreveport, La.	200 x 200

HIGH-OVER-ALL

Men—Rudy Etchen	961 x 1000
Women—Mrs. Frances King	919 x 1000
Junior—Robert Autrey, Jr.	948 x 1000
Professional—Cliff Doughman	950 x 1000

NATIONAL DOUBLES

Men—Mercer Tennille, Shreveport, La.	95 x 100
Women—Iva Pembridge, Phillipsburg, Kan.	84 x 100
Junior—Robert Autrey, Jr.	88 x 100
Professional—Cliff Doughman	93 x 100

ALL-AROUND

Men—Rudy Etchen	381 x 400
Women—Mrs. Frances King	361 x 400
Junior—Robert Autrey, Jr.	377 x 400
Professional—Cliff Doughman	370 x 400

CLASS CHAMPIONS

AA—H. N. Ferguson, Fontana, Calif.	200 x 200
A—George Stephenson, Wichita, Kan.	199 x 200
B—Fred Harlow, Newark, Ohio.	198 x 200
C—Ernest D. Tice, Lubbock, Texas.	197 x 200
D—George Tony, Indianapolis.	197 x 200
Professional—Cliff Doughman	200 x 200

OTHER CHAMPIONS

Vandalia Handicap—John H. Coulson, Monongahela, Pa. (19 yd.)	97 x 100
Veterans—John R. Taylor, Eustis, Fla.	99 x 100
Women veterans—Mrs. Roy Meadows, Grimes, Iowa.	96 x 100
Father-and-son—Floyd and Bill Daily, Fremont, Nebr.	199 x 200
Brother-and-brother—John Simpson, Portland, Oreg., and Raife Simpson, Cornelius, Oreg.	194 x 200
Husband-and-wife—Mr. and Mrs. Julius Petty, Stuttgart, Ark.	195 x 200
Zone singles—Bob Stifal, Casey, Ill.	100 x 100
Zone team race—Central (Herb Bush, Lauria Stanek, Bob Stifal, Vic Rein- ders, W. T. Middleton)	958 x 1000

Amateur Championships at Clay Targets, 1952

(At New York A. C., Travers Island, Pelham Manor, N. Y., May 9-11)

16-yd. single targets—Walter Ostrom, Orangeburg, N. Y.	199 x 200
Doubles—H. L. McKinley, Harrisburg, Ohio.	95 x 100
Senior (over 40 years)—Elmer E. Gardner, Bernardsville, N. J.	94 x 100
Women—Mrs. Florence Battersby, Philadelphia.	92 x 100
Junior—Dick Baldwin, Danbury, Conn.	194 x 200
Distance handicap—Dick Baldwin	93 x 100

SKETE SHOOTING

Source: National Skeet Shooting Association.

National Championships, 1952

(At Dallas, Texas, July 20-26)

High-over-all—Lewis Gordon, Texarkana, Ark.	540 x 550
All gauge—Major Harry B. Trimble, Hickam, AFB, Honolulu.	*260 x 250
Service individual—Major Harry B. Trimble.	*250 x 250
Intercollegiate—Benjamin Di Iorio, Jr., Utica, N. Y. (Wesleyan)	*248 x 250
All gauge 2-man team—Lewis Gordon, Texarkana, Ark.—John Shock, Little Rock, Ark.	498 x 500
Parent-and-child—R. L. Buford, Bobby Buford, Austin, Texas.	495 x 500
Husband-and-wife—Mr. and Mrs. L. S. Amburgey, Odessa, Texas.	487 x 500
2-man team—Texas (Charles H. Poulton, San Antonio; K. C. Miller, Tyler; Grant Iseng, Houston, Fred Alford, Sr., and Henry Adler, Dallas).	1235 x 1250
2-man service team—Strategic Air Command, Austin, Texas (T/Sgt. Glenn W. Van Buren, M/Sgt. Cecil B. Jones, A/2Q Mickey Michaelis, M/Sgt. Forrest T. Barnes, Col. C. T. Edwinton)	1233 x 1250
Champion of champions—Grant Iseng	*100 x 100
Western open—Howard P. Gady, San Francisco	*100 x 100
Eastern open—Paul Dublin, Jacksonville, Texas.	*100 x 100
East-West team championship—West.	*1999 x 2000
20 gauge—D. W. Conway, Clint, Texas.	*104 x 100
20 gauge 2-man team—Tommy Spicola III, Tampa, Fla.—Curtis Newsome, Gainesville, Fla.	197 x 200
Small gauge—Col. James L. Dawson, Bergstrom AFB, Austin.	99 x 100
Small gauge 2-man team—Jimmy Clark, Bartlesville, Okla.—David White, Tulsa, Okla.	196 x 200
Sub-small gauge—Tommy Spicola III.	97 x 100
Sub-small gauge 2-man team—Wright E. Cowden, Midland, Texas—Billy Eggers, Galveston, Texas.	189 x 200

WOMEN

High-over-all—Nancy Burrus, Dallas.	513 x 550
All gauge—Nancy Burrus.	247 x 250
20 gauge—Mrs. Alphonso Ragland, Jr., Dallas.	97 x 100
Small gauge—Ann Stasche, Houston.	93 x 100
Sub-small gauge—Mrs. L. S. Amburgey	87 x 100
Junior all gauge—Carola Simmons, Kansas City, Mo.	84 x 100

SENIOR

High-over-all—Joseph M. George, Sudlersville, Md.	514 x 550
All gauge—Joe H. Frost, Sr., San Antonio.	246 x 250
20 gauge—O. E. Chafin, Greggton, Texas.	96 x 100
Small gauge—R. J. Ford, Houston.	93 x 100
Sub-small gauge—Dr. C. H. Metcalfe, Sudlersville, Md.	82 x 100

JUNIOR

High-over-all—Jimmy Clark	*538 x 550
All gauge—Leo Hender, Galveston.	247 x 250
20 gauge—Jimmy Clark	98 x 100
Small gauge—Jimmy Clark	98 x 100
Sub-small gauge—Jimmy Clark	*95 x 100
Sub-junior all gauge—Billy Rogers, Palestine, Texas.	95 x 100

INDUSTRY

High-over-all—Fred Missetline, Sea Island, Ga.	539 x 550
All gauge—George F. Heaney, Indianapolis.	249 x 250
20 gauge—George F. Heaney	*100 x 100
Small gauge—James P. Stotts, Abilene, Texas.	*100 x 100
Sub-small gauge—James P. Stotts	96 x 100

* Equals tournament record. † New record.

Wyecotte's Eufaula Celebration, a male pointer owned by C. P. Bentley of Eufaula, Ala., and handled by J. T. Ogletree of Union Springs, Ala., captured the 1952 national shooting dog championship at Union Springs last February.

CURLING

1951-52 TROPHY WINNERS

(Skips in parentheses)

Source: Henry H. Newell, secretary, Grand National Curling Club of America.

AT ST. ANDREWS G. C., MOUNT HOPE, N. Y.,
DEC. 14-16Utica Cup—Mahopac C. C. (Halstead)
Tom Archibald Cup—Ardley No. 4 (Gish)

AT ST. ANDREWS G. C., JAN. 11-13

Douglas Medal—Ardley No. 2 (Hastings)
Griffith Medal—Ardley No. 1 (Eddison)

AT UTICA (N. Y.) C. C., JAN. 24-27

Mitchell Medal—Lachute, Quebec (MacTavish)
Allen Memorial Medal—Peterboro, Canada(Stetson)
The Country Club Cup—Montreal Caledonia(Rubbra)
Dewar Trophy—Utica No. 2 (Davies)

AT UTICA C. C., FEB. 2-3

Dykes Trophy—The Country Club, Brookline

(Carl)
Brookline Trophy—Schenectady No. 2 (Hutton)

AT NASHUA (N. H.) C. C.

Granite State Trophy—Nashua No. 2 (Belanger)
Patterson Memorial Trophy—St. George, Montreal(Rubbra)
AT SCHENECTADY (N. Y.) C. C.

Gordon Medal—Nashua (Hines)

Emmett Medal—Nashua (Hines)

Mohawk Trophy—Utica (Keyes)

DISTRICT CHAMPIONSHIPS

No. 1 (at Schenectady)—Utica (Reed)
No. 2 (at Mt. Hope)—St. Andrews No. 1 (Arndt)
No. 3 (at Nashua)—The Country Club (Pope)

AT THE COUNTRY CLUB, BROOKLINE, MASS.

Stockton Cup—The Country Club (Barrett)

Clyde Park Cup—Hamilton (Ont.) Thistle

(Ingraham)
AT MONTREAL, MARCH 7-8

Royal Caledonian Trophy—Montreal Heather

(Adair)
St. Lawrence Trophy—Lennoxville, Canada(Hamilton)
AT SCHENECTADY, N. Y., MARCH 14-15

Gordon International Medal—United States de-

feated Canada, 287 to 264.

AT MONTREAL, MARCH 27-29

(Canadian Branch Centennial Trophy)

Division A—Toronto Granite (MacDonald)

Division B—Kingston, Ont. (Allan)

Division C—St. Johns, Quebec (Ross)

MANITOBA BONSPIEL (AT WINNIPEG)

Grand Aggregate—Deer Lodge C. C., Winnipeg

(Jimmy Welsh)

British Consols Trophy—Fort Rouge C. C., Winni-

peg (Bill Walsh)

QUEBEC INTERNATIONAL BONSPIEL

Grand Aggregate—Royal Canadian C. C., Toronto

(N. Findlay)

Province of Quebec International Championship

(Lieutenant-Governor's Trophy)—Ottawa C. C.

(Stonehouse)

British Consols Trophy—St. George C. C., Montreal

(Weldon)

Chateau Frontenac International Trophy—Mont-

real West C. C. (Gallagher)

Omega International Trophy—Victoria (Quebec)

C. C. (Muth)

Francois Jobin International Gold Cup—Copper

Cliff (Ont.) C. C. (Canaplin)

1952 Canadian Championship

(At Winnipeg, Man., March 3-7)

FINAL STANDING OF THE RINKS

	W.	L.		W.	L.
Manitoba.....	10	0	New Brunswick...	5	5
Alberta.....	8	2	Saskatchewan....	4	6
British Columbia.	6	4	Northern Ontario.	3	7
Ontario.....	6	4	Prince Ed. Island.	1	9
Nova Scotia.....	6	4	Newfoundland....	1	9
Quebec.....	5	5			

* Fort Rouge C. C., Winnipeg (Johnny Watson, lead;
Ardy McWilliams, second; Allan Langlois, third; Billy
Walsh, skip).

ROLLER SKATING

A. R. S. A. CHAMPIONS, 1952

Source: United States Amateur Roller Skating Asso-

ciation.

National

(At Muskegon, Mich.)

Men's senior—Ronald Rancourt, Mineola, N. Y.
Women's senior—Diane Lanzotti, Elizabeth, N. J.
Men's intermediate—Billy Ferraro, Plymouth,
Mich.
Women's intermediate—Margie Adair, Trenton,
N. J.
Men's junior—Ronald Holland, Pasadena, Calif.
Women's junior—Ruth Henrich, Mineola, N. Y.
Boys' novice—Louis Meyers, Trenton, N. J.
Girls' novice—Joyce Magee, Alexandria, Va.
Boys' juvenile—Emanuel Commandatore, Bay-
onne, N. J.
Girls' juvenile—Dawn Brown, Trenton, N. J.

PAIRS

Senior—Irma Brown and Michael Brown, Ovid,
N. Y.
Women's senior—Ruth Henrich-Margaret Myers,
Mineola, N. Y.
Senior dance—Ann Feder-Edward O'Donnell,
Mineola, N. Y.
Intermediate—Barbara Kempainen-Lee De Wolf,
Plymouth, Mich.

FOURS

Senior—Elizabeth, N. J. (Haddad, Thelgin, Reed,
Lanzotti)
Intermediate—Grand Rapids, Mich. (Hohenstein,
Niemeier, Pawlicki, Perkins)

SPEED

Men's senior—Edward Horan, Elizabeth, N. J.
Women's senior—Ellen Hughes, Bladensburg, Md.
Men's intermediate—John Bernhard, Alexandria,
Va.
Women's intermediate—Adele Marsh, Paterson,
N. J.
Men's junior—Donald De Roo, Paterson, N. J.
Women's junior—Barbara Thompson, Washington,
D. C.
Men's novice—Raymond Musser, Paterson, N. J.
Women's novice—Joan Hobeck, Alexandria, Va.

RINK OPERATORS CHAMPIONS, 1952

Source: Roller Skating Rink Operators Association of
America.

American

(At Denver, Colo.)

SINGLES

Men's senior—Skipper Oakes, San Mateo, Calif.
Women's senior—Laurene Anselmy, Pontiac, Mich.
Men's intermediate—Arthur Kerwin, Seattle
Women's intermediate—Gail Locke, Detroit
Men's novice—Richard Cass, Elmont, N. Y.
Women's novice—Marilyn Adams, Detroit
Boys' junior—John Matejec, Detroit
Girls' junior—Susan Cowan, Greeley, Colo.

FIGURE

Men's senior—Ted Rosdahl, Chicago
Women's senior—Nancy Kromis, Detroit
Men's intermediate—Arthur Kerwin, Seattle
Women's intermediate—Gail Locke, Detroit

PAIRS

Senior—Gail Locke—William Pate, Jr., Detroit
Intermediate—Nancy Kromis—John Matejec, De-
troit

DANCE

Senior—Joanne and Robert LaBriola, Brooklyn
Intermediate—Nancy Curtis-Dickie Deatsch, Marys-
ville, Calif.

FOURS

Senior—Detroit (Kromis, Matejec, Locke, Pate)
Intermediate—Middletown, Ohio (Recher, Houck,
Dorn, Sticklen)

SPEED

Men's senior—Earl Knight, Chicago
Women's senior—Evalyn Olson, Oakland, Calif.
Men's intermediate—Angelo Diglio, Neptune, N. J.
Women's intermediate—Virginia Perkins, Newport,
Oreg.
Boys' junior—Ralph Conrad, Pennsville, N. J.
Girls' junior—Lynn Nostave, Tulsa, Okla.
Men's relay—Denver (Kinney, Moon, Mallo, Maxey)
Women's relay—Oakland, Calif. (Bracken, Olson,
Levi, Major)

AUTO RACING

THE FIRST automobiles on the road were erratic in action and driving them or even riding in them was considered a trifle risky, hence it became the sporting thing to do. Experimental excursions in crude cars gave rise to rivalry in speed over the rough roads of the Gay Nineties and this eventually led to formal contests, the first of which was a road race from Paris to Rouen in 1894, with 26 cars showing up at the starting line. Formal competition in the United States started with a road race in the Chicago district on Thanksgiving Day, 1895, and the winner, J. F. Duryea, covered the road distance of 54.36 miles at the astonishing average of 7.5 miles per hour!

Around 1900 Paris became the hub of road racing in Europe and each year there were raucous, dusty and dangerous races from Paris to Berlin, to Vienna, to Madrid

and other cities on the Continent. Accidents were so numerous to drivers and spectators that, after a gory group of mishaps in the forepart of the Paris-Madrid race of 1903, the contest was halted at Bordeaux by public authorities and all road racing was brought under control. Other kinds of auto racing were exposed to view. Some contests, including 24-hour races for stock models, were held on circular or oval tracks originally built for horse racing. Finally came the special racing strips for autos, including such famous autodromes as Brooklands in England and the Indianapolis Speedway in the United States.

As a test of engine and chassis under severe conditions and great strain, auto racing rendered invaluable assistance in the development of the motor car of today.

National A. A. A. Champions

1909 Bert Dingley	1922 Jimmy Murphy	1935 Kelly Petillo
1910 Ray Harroun	1923 Eddie Hearne	1936 Mauri Rose
1911 Ralph Mulford	1924 Jimmy Murphy	1937 Wilbur Shaw
1912 Ralph DePalma	1925 Peter DePaolo	1938 Floyd Roberts
1913 Earl Cooper	1926 Harry Hartz	1939 Wilbur Shaw
1914 Ralph DePalma	1927 Peter DePaolo	1940 Rex Mays
1915 Earl Cooper	1928 Louis Meyer	1941 Rex Mays
1916 Dario Resta	1929 Louis Meyer	1946 Ted Horn
1917 Earl Cooper	1930 Billy Arnold	1947 Ted Horn
1918 Ralph Mulford	1931 Louis Schneider	1948 Ted Horn
1919 Howard Wilcox	1932 Bob Carey	1949 John Parsons
1920 Gaston Chevrolet	1933 Louis Meyer	1950 Henry Banks
1921 Tommy Milton	1934 Bill Cummings	1951 Tony Bettenhausen

History of the One-Mile Speed Mark

The first recorded effort for one mile was made in 1893 by Chasseloup-Laubat, driving a Jentaud, in France. His average was 39.23 m.p.h. This was increased to 65.79 in 1899 by Jenatzy, also in France. The first man to travel better than 100 m.p.h. was Rigolly, in 1904, at 103.56 m.p.h., followed by Baras, with 104.53 in the same year. The first over 200 m.p.h. was Major H. O. D. Segrave, who drove at 203.790 in 1927 at Daytona, Florida.

In 1947 John Cobb of London became the first person to travel more than 400 m.p.h. on land. The Englishman accomplished the

feat on Sept. 16 at Bonneville, Utah, while raising the world mile record to 394.196 m.p.h. and the world kilometer (.62187 of a mile) mark to 393.825 m.p.h.

Cobb's fastest mile was covered in 8.93 seconds and his average speed was 9.1325 seconds. The Briton drove at the rate of 385.645 m.p.h. for the mile and 388.019 for the kilometer on the southward run, then increased his pace to 403.135 m.p.h. and 399.808, respectively, on the northward sprint, the best times ever recorded.

Those who drove 300 m.p.h. or better follow (all at Bonneville):

Date	Driver	Car	Average
Sept. 3, 1935	Sir Malcolm Campbell	Bluebird Special	301.1292
Nov. 19, 1937	Capt. G. E. T. Eyston	Thunderbolt #1	311.42
Aug. 27, 1938	Capt. G. E. T. Eyston	Thunderbolt #1	345.5
Sept. 15, 1938	John Cobb	Railton	350.2
Sept. 16, 1938	Capt. G. E. T. Eyston	Thunderbolt #1	357.5
Aug. 23, 1939	John Cobb	Railton Red Lion	368.9
Sept. 16, 1947	John Cobb	Railton Mobil Special	394.196

Le Mans Test to German Auto

A German Mercedes-Benz auto, driven by Hermann Lang and Fritz Riess, won the 24-hour sports car endurance race at Le Mans, France, in 1952. The winning pair went around the approximately eight and

one-half mile course more than 275 times for a total distance of about 2,320 miles. Taking turns at the wheel, the Germans averaged 96.6 miles per hour. Another German car of the same make finished second.

Indianapolis Speedway Winners

(500-mile race)

Year	Winner	Car	Second	Third	Time	Average m.p.h.
1911	Harroun	Marmen	Mulford	Bruce-Brown	6:42:08	74.50
1912	Dawson	National	Tetzloff	Hughes	6:21:06	78.70
1913	Goux	Peugeot	Wishart	Merz	6:35:05	76.92
1914	Thomas	Delage	Duray	Guyot	6:03:45	82.47
1915	DePalma	Mercedes	Resta	Anderson	5:23:35	89.84
1916*	Resta	Peugeot	De Aleve	Mulford	3:34:17	83.26
1917-18	No races					
1919	Wilcox	Peugeot	Hearne	Goux	5:40:42	88.06
1920	Chevrolet	Monroe	Thomas	Milton	5:38:32	88.50
1921	Milton	Frontenac	Salles	Ford	5:34:44	89.62
1922	Murphy	Murphy Special	Hartz	Hearne	5:17:30	94.48
1923	Milton	H. G. S. Special	Hartz	Murphy	5:29:59	90.95
1924	Corum-Boyer	Dusenber Special	Cooper	Murphy	5:05:23	98.23
1925	DePaolo	Dusenber Special	Lewis	Sharet	4:56:39	101.13
1926†	Lockhart	Miller Special	Hartz	Woolbury	4:10:17	95.83
1927	Souders	Dusenber	Devore	Giatta	5:07:33	97.54
1928	Meyer	Miller Special	Moore	Souders	5:01:33	99.48
1929	Keach	Simplex Special	Meyer	Gieson	5:07:26	97.58
1930	Arnold	Hartz-Miller	Canlon	Schneider	4:58:39	100.498
1931	Schneider	Bowes Special	Frame	Hepburn	5:10:28	96.629
1932	Frame	Miller Special	Wilcox	Bergere	4:48:03.79	104.144
1933	Meyer	Miller Special	Shaw	Moore	4:48:12.75	104.089
1934	Cummings	Miller Special	Rose	Moore	4:46:05.20	104.863
1935	Pettito	Gilmore Special	Shaw	Cummings	4:42:22.71	106.240
1936	Meyer	Ring Free Special	Horn	MacKenzie	4:35:03.39	109.069
1937	Shaw	Shaw-Gilmore Special	Hepburn	Horn	4:24:07.80	113.580
1938	Roberts	Burr Piston Reg. Special	Shaw	Miller	4:19:58.40	117.200
1939	Shaw	Boyle Special	Snyder	Bergere	4:20:47.39	115.035
1940	Shaw	Boyle Special	Mays	Rose	4:22:31.17	114.277
1941	Rose-Davis‡	Nuc-Out Rose Clamp Special	Mays	Horn	4:20:36.24	115.117
1942-45	No races					
1946	Robson	Thorne Eng. Special	Jackson	Horn	4:21:16.71	114.820
1947	Rose	Blue Crown Special	Holland	Horn	4:17:52.17	116.338
1948	Rose	Blue Crown Special	Holland	Naton	4:10:23.38	119.613
1949	Holland	Blue Crown Special	Parsons	Connor	4:07:15.97	121.327
1950§	Parsons	Wynn's Fiction Proof Spl.	Holland	Kuse	2:46:55.97	124.002
1951	Wallard	Belanger Special	Nazaruk	McGrath-Ayala	3:57:38.65	126.244
1952	Rutman	Agajanian Special	Rathmann	Hanks	3:52:41.88	128.922

* 300 miles. † Race ended at 400 miles owing to heavy rain. ‡ Davis drove 180 miles, Rose 420. § 1950 race ended at 345 miles because of rain.

CANOEING, 1952

Source: Walter Haner, Jr., Chairman, National Paddling Committee, American Canoe Association.

U. S. Paddling Championships

(At Philadelphia, Aug. 24)

Team—Samoset C. C., Medham, Mass. 36 pts.

SENIOR EVENTS—1,000 METERS

1-man single blade—Franz B. Ravens, Washington

(D. C.) C. C.

1-man double (Kayak)—Richard Moran, Samoset

C. C.

Tandem single—George Byers-Dan Bingham,

Samoset C. C.

Tandem double (Kayak)—Tom Horton-John Eise-

man, Potomac boat Club, Washington, D. C.

SENIOR EVENTS—½ MILE

4-man single—Samoset C. C. (Paul Donohue, Dan

Bingham, George Byers, Richard Moran)

4-man double—Potomac B. C. (Tom Horton, Wil-

liam Schuette, John Eise-man, William Kimball)

JUNIOR EVENTS—1,000 METERS

1-man single—Paul Donohue, Samoset C. C.

1-man double (Kayak)—Philip Doherty, Samoset

C. C.

Tandem single—Michael Budrock-Stan Messur,

Yonkers (N. Y.) C. C.

Tandem double (Kayak)—William Schuette-Wil-

liam Kimball, Potomac B. C.

JUNIOR EVENTS—½ MILE

4-man single—Sebago C. C., Lake Sebago, N. Y.

(Joe Cuniff, John Cuniff, John McSweeney, Louis

Venezia)

2-man double—Inwood C. C., New York (Ronny

Thompson, James Bowe, Richard Miller, Tom

Downey)

U. S. Sailing Champions

Decked sailing canoes—acroph Morse, New York.

Open cruising canoes—Douglas Cummings, Jr.,

Pines Lake, N. J.

North American Paddling

(At Gananoque, Ontario, Aug. 17)

Team—Inwood C. C., New York. 32 pts.

SENIOR EVENTS—½ MILE

1-man single—Richard Moran, Samoset C. C.

2-man double (Kayak)—William Schuette, Po-

tomac B. C.

Tandem single—Richard Moran-Paul Donohue

Samoset C. C.

Tandem double (Kayak)—Moran-Donohue

4-man double—Inwood C. C. (Ronny Thompson,

Eric Feicht, John Miller, James Bowe)

* At one mile.

JUNIOR EVENTS—½ MILE

1-man single—James Bowe, Inwood C. C.

1-man double (Kayak)—Philip Doherty, Samoset

C. C.

Tandem single—James Bowe-Ronny Thompson

Tandem double (Kayak)—Phil Shard-Tome Jones,

Potomac B. C.

YACHTING

JASON sailed in search of the Golden Fleece. Cleopatra (according to Shakespeare) had a royal barge with purple sails. Columbus had three sailing ships when he crossed the Atlantic westward in 1492. But who the first sailor was and where he launched his primitive craft nobody ever will know. The word "yacht" is of Dutch origin and the first "yacht race" of record in the English language was a sailing contest from Greenwich to Gravesend and return in 1662 between a Dutch yacht and an English yacht designed and, at some part of the race, sailed by Charles II of England. The royal yacht won the contest.

The first yacht club was organized at Cork, Ireland, in 1720 under the name of the Cork Harbour Water Club, later changed to the Royal Cork Yacht Club. The Royal Yacht Squadron was organized

at Cowes in 1812 and the name changed to the Royal Yacht Club in 1820. The New York Yacht Club was organized aboard the Stevens schooner "Glimcrack" on July 30, 1844, and a clubhouse erected at Elysian Fields, Hoboken, N. J., the following year.

From that time until the Civil War races were held over courses starting from the water off the yacht club promontory. One course was to the Sandy Hook Lightship and return.

In 1850 the celebrated "America" was built by a group of New York yachtsmen and sent abroad to compete at Cowes. In a race around the Isle of Wight, with a special cup as a prize, the "America" defeated fourteen English boats and brought back the trophy that has been raced for as "the America's Cup" in many international yacht races since that time.

AMERICA'S CUP RECORD

(Figures in parentheses indicate number of races won)

Dates	Winner, Owner, Country	Looser, Owner, Country
Aug. 22, 1851.....	AMERICA (1), J. C. Stevens, U. S.....	*AURORA, J. Le Marchant, England,
Aug. 8, 1870.....	MAGIC (1), F. Osgood, U. S.....	CAMBRIA, J. Ashbury, England
Oct. 16-23, 1871.....	COLUMBIA (2), F. Osgood, U. S.....	LIVONIA (1), J. Ashbury, England
	SAPPHO (2), Wm. P. Douglass, U. S.	
Aug. 11-12, 1876.....	MADEIRA (2), J. Dickerson, U. S.....	COUNTESS OF DUFFERIN, C. Gifford, Canada
Nov. 9-10, 1881.....	MISCHIEF (2), J. Busk, U. S.....	ATALANTA, A. Cuthbert, Canada
Sept. 14-16, 1885.....	PURITAN (2), J. Forbes, U. S.....	BENESTA, Sir R. Sutton, England
Sept. 9-11, 1886.....	MYFLOWER (2), Gen. J. Paine, U. S.....	GALATEA, Lt. Henn, R.N., England
Sept. 17-30, 1887.....	VOLUNTEER (2), Gen. J. Paine, U. S.....	THISTLE, J. Bell, England
Oct. 7-13, 1893.....	VIGILANT (3), Messrs. Iselin-Morgan, U. S.....	VALKYRIE, Lord Dunraven, England
Sept. 7-12, 1895.....	DEFENDER (3), Messrs. Iselin-Morgan, U. S.....	VALKYRIE II, Lord Dunraven, England
Oct. 16-20, 1899.....	COLUMBIA (3), Messrs. Iselin-Morgan, U. S.....	SHAMROCK I, Sir Thomas Lipton, England
Sept. 28-Oct. 4, 1901.....	COLUMBIA (3), J. P. Morgan, U. S.....	SHAMROCK II, Sir Thomas Lipton, England
Aug. 22-Sept. 3, 1903.....	RELANCE (3), Iselin, et al, U. S.....	SHAMROCK III, Sir Thomas Lipton, England
July 15-27, 1920.....	RESOLUTE (3), R. Emmens, et al, U. S.....	SHAMROCK IV (2), Sir Thomas Lipton, England
Sept. 13-17, 1930.....	ENTERPRISE (4), Aldrich-Vanderbilt, U. S.....	SHAMROCK V, Sir Thomas Lipton, England
Sept. 17-25, 1934.....	RAINBOW (4), H. S. Vanderbilt, U. S.....	ENDEAVOUR (2), T. O. M. Sopwith, England
July 31-Aug. 5, 1937.....	RANGER (4), H. S. Vanderbilt, U. S.....	ENDEAVOUR II, T. O. M. Sopwith, England

* Finished second. First race held off Cowes, Isle of Wight, England; from 1870 to 1920 races held off New York Bay; from 1880 to 1937 races held off Newport, R. I.

YACHTING CHAMPIONS IN 1952

Source: John Rendel, *The New York Times*.

One-Design Racing

World Star—Augustino Straulino's Merope, Italy.

International Comet—Phil A. Somervell, Edgewater Park, N. J.

National Snipe—Ted Wells, Wichita, Kan.

National women's (Mrs. Charles Francis Adams Trophy)—Patricia Hinman, Manhasset Bay Y. C., Port Washington, N. Y.

National junior (Sears Bowl)—Martin Purcell, Indian Harbor Y. C., Greenwich, Conn.

Long Island Sound men's—Cornelius Shields, Larchmont (N. Y.) Y. C.

Gold Cup (international six-meter)—Norway (Finn Ferner, skipper).

International Lightning—Robert W. Graf, Seattle, W. T.

International 110—Bob Mann, San Diego, Calif.

U. S. vs. Bermuda, International Class team—Bermuda; King Edward VIII Gold Cup—Bert Darrell, Bermuda.

U. S. vs. Bermuda, Luders 16 Class—Amorita Cup: Bermuda; Aberfeldy Cup: United States.

National open Moth—Randall Swan, Jr., Charleston, S. C.

International Moth—Claiborne Coupland, Norfolk, Va.

National junior Snipe—Morris Whitney, Clearwater, Fla.

National One-Design—Sidney Exley, Alamos (Calif.) Y. C.

Olympic

Star—Italy Dragon—Norway
6-meter—United States Finn—Denmark
5.5-meter—United States

WORLD STAR CLASS CHAMPIONS

Source: International Star Class Yacht Racing Association.

Year	Winner	Skipper	Skipper's fleet	Where held
1922	TAURUS	W. L. Inslee	Western L. I. Sound	Western L. I. Sound
1923	TAURUS	W. L. Inslee	Western L. I. Sound	Western L. I. Sound
1924	LITTLE BEAR	J. R. Robinson	Western L. I. Sound	Western L. I. Sound
1925	ACE	Adrian Iselin II	Western L. I. Sound	Western L. I. Sound
1926	RHODY	S. W. Comstock	Narragansett Bay	Western L. I. Sound
1927	TEMPE III	Walton Hubbard	Newport Harbor	Warwick, R. I.
1928	SPARKLER II	P. E. Edington	New Orleans Gulf	Newport Beach, Calif.
1929	EEL	J. G. Johnson	Chesapeake Bay	New Orleans, La.
1930	PEGGY WEE	A. Knapp	Western L. I. Sound	Gibson Island, Md.
1931	COLLEEN	W. J. McHugh	Central L. I. Sound	Western L. I. Sound
1932	MIST	Edward Fink	Los Angeles Harbor	Southport, Conn.
1933	THREE STAR TWO	Glenn Waterhouse	E. San Francisco Bay	Los Angeles, Calif.
1934	BY-C	H. F. Beardslee	Newport Harbor	San Francisco, Calif.
1935	BY-C	H. F. Beardslee	Newport Harbor	Newport Beach, Calif.
1936	ACE	Adrian Iselin II	Western L. I. Sound	Rochester, N. Y.
1937	LECKY	Milton Wegeforth	San Diego Bay	Western L. I. Sound
1938	PIMM	Walter von Hutschler	Hamburg	San Diego, Calif.
1939	PIMM	Walter von Hutschler	Hamburg	Kiel, Germany
1940	RAMBUNCTIOUS	Jim Cowie	Los Angeles Harbor	San Diego, Calif.
1941	WENCH	George Fleitz	Los Angeles Harbor	Los Angeles, Calif.
1942	*	Harry G. Nye, Jr.	Southern Lake Mich.	Chicago, Ill.
1943	*	Arthur M. Deacon	Western L. I. Sound	Bay Shore, N. Y.
1944	*	Gerald Driscoll	San Diego Bay	Chicago, Ill.
1945	*	Malin Burnham	San Diego Bay	Stamford, Conn.
1946	WENCH II	George Fleitz	Los Angeles Harbor	Havana
1947	GEM II	Durward Knowles	Nassau, Bahamas	Los Angeles, Calif.
1948	TWIN STAR	Lockwood M. Pirie	Wilmette Harbor, Ill.	Lisbon, Portugal
1949	GALE	Harry G. Nye, Jr.	Southern Lake Mich.	Chicago, Ill.
1950	SEA ROBIN	Robert Lippincott	West Jersey	Chicago, Ill.
1951	SHANNON	E. W. Etchells	Central L. I. Sound	Gibson Island, Md.
1952	MEROPE	A. Straulino	Italy	Cascaes, Portugal

* Indicates skipper's series in which the contestants drew for local boats each day and brought their own sails.

CHESS

Source: American Chess Bulletin of New York.

World Champions

1851-58	Adolph Anderssen, Breslau, Germany
1858-62	Paul Morphy, New Orleans, La.
1862-66	Adolf Anderssen, Breslau, Germany
1866-94	William Steinitz, Vienna, Austria
1894-1921	Emanuel Lasker, Berlin, Germany
1921-27	Jose R. Capablanca, Havana, Cuba
1927-35	Alexander A. Alekhine, Moscow, Russia
1935-37	Dr. Max Euwe, Amsterdam, the Netherlands
1937-46	Alexander A. Alekhine, Moscow, Russia*
1948-	Mikhail Botvinnik, Leningrad, Russia

* Alekhine, a French citizen, died on March 23, 1946, leaving the world championship vacant.

World Team Title to Russia

Russia's players captured the world team championship in the tournament of the International Chess Federation at Helsinki, Finland, last August and gained custody for two years of the Hamilton-Russell Trophy, which was won by Yugoslavia in 1950.

Matches in 1952

Reshevsky 8, Najdorf 4 (6 draws)
 Reshevsky 2, Gligoric 1 (7 draws)
 U. S. championship—Evans 8, Steiner 2 (4 draws)
 Havana International tournament—Tie for first between
 Samuel Reshevsky, United States, and Miguel Najdorf,
 Argentina (each had 18½-3½ record)

United States Champions

1852-62	Paul Morphy, New Orleans, La.
1871-87	George H. Mackenzie, New York
1887-92	Max Judd, St. Louis, Mo.
1892-94	Simon Lipschuetz, New York
1894	Jackson W. Showalter, Georgetown, Ky.
1894	Albert B. Hodges, Staten Island, N. Y.*
1894-97	Jackson W. Showalter, Georgetown, Ky.
1897-1906	Harry Nelson Pillsbury, Boston, Mass.
1906-09	Jackson W. Showalter, Georgetown, Ky.
1909-36	Frank J. Marshall, New York
1936-44	Samuel Reshevsky, New York†
1944-46	Arnold S. Denker, New York
1946	Samuel Reshevsky, Boston
1948	Herman Steiner, Los Angeles
1951	Larry Evans, New York

* Retired after winning return match with Showalter.
 † In 1942, Isaac I. Kashdan of New York was co-champion for a while because of a tie with Reshevsky in that year's tournament. Reshevsky won the play-off.

Other Chess Champions, 1952

WORLD

Women—Mrs. Ludmilla Rudenko, Moscow, U.S.S.R.
 Junior—B. Ivkov, Yugoslavia

UNITED STATES

Open—Larry Evans, New York
 Speed—Larry Evans and Donald Byrne, New York (co-champions)
 Junior—Curt Braskot, Tracy, Minn.
 Women—Mrs. Mary Bain, New York

MOTORBOATING

SINCE the source of power—the internal combustion engine—is the same in the motorboat as it is in the automobile, the history of motorboat racing parallels that of auto racing. There was a sporting risk in driving the early power boats. As soon as they began to show a degree of dependability, there came the informal rivalries of the rivers and lakes. These led to the formal contests of speed and endurance

over marked courses under the control of the American Power Boat Association. The races were severe tests of all parts of power boats and what was learned in the annual Gold Cup competition, which started in 1904, caused a great improvement in the designing of engines and hulls. The development of the outboard motor opened up another branch of power boat competition of wide popularity.

Motorboating Statistics

Source: American Power Boat Association and Motor Boating Magazine.

GOLD CUP WINNERS

Beginning with 1922 the race for the American Power Boat Association Gold Cup was open only to displacement boats of over 25 feet in length and powered with motors of not more than 625 inches piston displacement. In 1946 the rules were liberalized to encourage the entry of smaller, less expensive craft. Boats now are required to be between 10 and 40 feet in length, with horsepower unlimited.

Year	Sponsor	Winner and owner	Time of best heat	Best heat speed m.p.h.
1904	Columbia Yacht Club.....	STANDARD, C. C. Riethe.....	1:33:30	23.6
1904	Columbia Y. C.....	VINGT-ET-UN II, W. Sharpe Kilmer.....	1:27:03	25.3
1905	Chippewa Bay Y. C.....	CHIP, J. Wainwright.....	1:52:38	15.9
1906	Chippewa Bay Y. C.....	CHIP II, J. Wainwright.....	1:27:01	20.6
1907	Chippewa Bay Y. C.....	CHIP II, J. Wainwright.....	1:26:43	20.8
1908	Chippewa Bay Y. C.....	DIXIE II, E. J. Schroeder.....	0:58:13	30.9
1909	Thousand Islands Y. C.....	DIXIE II, E. J. Schroeder.....	0:58:25	32.6
1910	Thousand Islands Y. C.....	DIXIE III, F. K. Burnham.....	0:57:14	33.9
1911	Frontenac Y. C.....	MIT II, J. H. Hayden.....	0:53:31	36.1
1912	Thousand Islands Y. C.....	P. D. Q. II, Alfred Q. Miles.....	0:44:59	44.5
1913	Thousand Islands Y. C.....	ANKLE DEEP, C. S. Mankowski.....	0:41:03	50.49
1914	Lake George Reg. Assn.....	BABY SPEED DEMON II, Paula Blackton.....	0:42:41	48.5
1915	L. I. Sound P. B. A.....	MISS DETROIT, Miss Detroit P. B. A.....	0:41:21	49.7
1916	Miss Detroit P. B. A.....	MISS MINNEAPOLIS, Miss Minneapolis B. A.....	0:52:12	36.8
1917	Miss Minneapolis B. A.....	MISS DETROIT II, Garfield A. Wood.....	0:36:47	56.5
1918	Detroit Y. C.....	MISS DETROIT III, Detroit Yachtsmen.....	0:34:36	52.1
1919	Detroit Y. C.....	MISS DETROIT III, Garfield A. Wood.....	0:32:37	56.3
1920	Detroit Y. C.....	MISS AMERICA, Garfield A. Wood.....	0:25:44	70.0
1921	Detroit Y. C.....	MISS AMERICA, Garfield A. Wood.....	0:32:52	56.5
1922	Detroit Y. C.....	PACKARD-CHRIS CRAFT, J. G. Vincent.....	0:44:17.77	40.6
1923	Detroit Y. C.....	PACKARD-CHRIS CRAFT, J. G. Vincent.....	0:40:30	44.4
1924	Detroit Y. C.....	BABY BOOTLEGGGER, Caleb Bragg.....	0:33:48.81	46.4
1925	Columbia Y. C.....	BABY BOOTLEGGGER, Caleb Bragg.....	0:37:11	48.4
1926	Columbia Y. C.....	GREENWICH FOLLY, G. H. Townsend.....	0:36:34	49.22
1927	Indian Harbor Y. C.....	GREENWICH FOLLY, G. H. Townsend.....	0:35:18	50.99
1929	Red Bank & Columbia Y. C.....	IMP, R. F. Hoyt.....	0:35:39.04	50.489
1930	Red Bank & Columbia Y. C.....	HOTSY TOTS, v. Kliersrath.....	0:32:07	56.05
1931	Montauk Y. C.....	HOTSY TOTS, v. Kliersrath-R. Hoyt.....	0:32:46.47	54.92
1932	Montauk Y. C.....	DELPHINE IV, Horace E. Dodge.....	0:30:24	59.21
1933	Detroit Y. C.....	EL LAGARTO, G. Reis.....	0:29:34.4	60.866
1934	Lake George Club.....	EL LAGARTO, G. Reis.....	0:31:00.4	58.06
1935	Lake George Club.....	EL LAGARTO, G. Reis.....	0:31:16	57.582
1936	Lake George Club.....	IMPSHI, Horace E. Dodge.....	0:38:13	47.120
1937	Detroit Y. C.....	NOTRE DAME, Herbert Mendelson.....	0:26:13.32	68.645
1938	Detroit Y. C.....	ALAGI, Theo Rossi.....	0:27:14.38	66.080
1939	Miss Detroit P. B. A.....	MY SIN, Z. G. Simmons, Jr.....	0:25:50.73	67.05
1940	Indian Harbor Y. C.....	HOTSY TOTS III, Sidney Allen.....	0:36:04.3	51.316
1941	Red Bank Reg. Assn.....	MY SIN, Z. G. Simmons, Jr.*.....	—	52.509
1946	Detroit, Y. C.....	TEMPO VI, Guy Lombardo.....	0:25:23.74	70.787
1947	South Shore Y. C.....	MISS PEPS V, Walter, Roy and Russell Dossin.....	0:31:33.6	57.02
1948	Detroit Y. C.....	MISS GREAT LAKES, Albin Fallon.....	0:31:19.82†	57.452‡
1949	Detroit River R. A.....	MY SWEETIE, Bill Cantrell.....	0:22:53.26	78.645
1950	Detroit River R. A.....	SLO-MO-SHUN IV, Stanley S. Sayres.....	0:22:15.03	80.892
1951	Seattle Y. C.....	SLO-MO-SHUN V, Stanley S. Sayres.....	0:19:37	91.766
1952	Seattle Y. C.....	SLO-MO-SHUN IV, Stanley S. Sayres.....	—	101.024‡

* Only contestant. † Made by SUCH CRUST. ‡ Made by Miss Pepsi.

RECORDS FOR ONE-MILE STRAIGHTAWAY

(Through Oct. 31, 1952)

Source: Clarence E. Lovejoy, Boating Editor, *The New York Times*, and Educational Consultant, 1475 Broadway, New York 36, N. Y.

Class	Speed m.p.h.	Date	Place	Boat and driver
Unlimited hydroplane.....	178.497	7/7/52	Seattle, Wash.....	SLO-MO-SHUN IV, Stanley Sayres
7 Litre.....	98.361	10/1/51	New Martinsville.....	TOMMYANN, Joseph Taggart
266 cu. in. hydroplane.....	120.085	11/9/51	Salton Sea, Calif.....	ALTER EGO, Paul Sawyer
225 cu. in. hydroplane.....	100.029	8/11/52	Seattle, Wash.....	RESTLESS, Art Maynard
135 cu. in. hydroplane.....	99.483	8/11/52	Seattle, Wash.....	AVENGER IV, Eddie Meyer
91 cu. in. hydroplane.....	71.891	7/8/51	Bush River, Md.....	MISS FORT PITT, Tony Margio
48 cu. in. hydroplane.....	82.436	8/11/52	Seattle, Wash.....	PEGGY, Victor Klette
48 cu. in. runabout.....	60.708	8/3/52	San Diego, Calif.....	MICKEY MOUSE, Mrs. Ruby Scull
Pacific One-Design hydro.....	59.900	5/21/49	Salton Sea, Calif.....	BOUNCY BARB, Ed Brown
Cracker Box inb. runabout.....	72.054	11/9/51	Cambridge, Md.....	JO-CAROL-TOO, D. Ardoline
Jersey Speed Skiff.....	49.611	8/3/52	Lake Alfred, Fla.....	Eleanor Shakeshaft
Class M out. hydro.....	42.303	3/21/49	Salton Sea, Calif.....	S-1, Tom L. DeWitt
Class A out. hydro.....	50.281	11/19/45	Salton Sea, Calif.....	Jack Henckels
Class B out. hydro.....	57.234	10/29/40	Seattle, Wash.....	R-92, C. A. Pierre
Class C out. hydro.....	65.084	8/11/52	Seattle, Wash.....	AIR EXPRESS, Bud Wiget
Class C ser. out. hydro.....	52.402	8/7/51	Seattle, Wash.....	DOT, C. A. Pierre
Class C racing out. run.....	62.479	8/11/52	San Diego, Calif.....	MISS SANTA BARBARA, Tom Newton
Class C ser. out. runabout.....	51.613	5/21/49	Port Mercer, N. J.....	James Mullen II
Class F out. hydro.....	66.234	6/8/40	Worcester, Mass.....	MUSCAT KID V, J. Kovacevich
Class F rac. out. runabout.....	57.935	9/16/40	Cambridge, Md.....	MY BOY WOODY, E. Pilescott
Class D rac. inb. runabout.....	72.591	8/3/52	Cambridge, Md.....	SLIVER, Al Endres
Class E rac. inb. runabout.....	80.743	8/3/52	Bush River, Md.....	CARY, Joseph Mascari
Class E ser. inb. runabout.....	57.753	7/8/51	Bush River, Md.....	RED EAGLE, Edison Hedges
Class F ser. inb. runabout.....	57.280	7/8/51	Ocean City, N. J.....	BEAVER II, L. G. Gatter
Class K rac. inb. runabout.....	69.438	9/8/50		

RECORDS IN COMPETITION

Class	Dist.	Speed m.p.h.	Date	Place	Boat and driver
Unlimited.....	10(n)	111.7423	8/12/51	Seattle, Wash.....	SLO-MO-SHUN IV, Lou Fageol
Gold Cup lap.....	3	108.663	8/4/51	Seattle, Wash.....	SLO-MO-SHUN V, Lou Fageol
Gold Cup heat.....	30	91.766	8/4/51	Seattle, Wash.....	SLO-MO-SHUN V, Lou Fageol
Gold Cup race.....	90	78.215	7/22/50	Detroit, Mich.....	SLO-MO-SHUN IV, Ted Jones
Harmsworth lap.....	5(n)	102.676	9/2/50	Detroit, Mich.....	SLO-MO-SHUN IV, Lou Fageol
Harmsworth heat.....	40(n)	100.68	9/2/50	Detroit, Mich.....	SLO-MO-SHUN IV, Lou Fageol
Harmsworth race.....	80(n)	95.623	9/2/50	Detroit, Mich.....	SLO-MO-SHUN IV, Lou Fageol
President's Cup heat.....	15	88.725	9/17/50	Washington, D. C.....	MISS PEPSI, Chuck Thompson
Natl. Sweepstakes heat.....	10	87.464	8/14/49	Red Bank, N. J.....	MY SWEETIE, W. J. Cantrell
Silver Cup heat.....	10(n)	107.394	9/4/50	Detroit, Mich.....	MISS PEPSI, Chuck Thompson
Steel Cup heat.....	15	67.500	5/20/50	Pittsburgh, Pa.....	SUCH CRUST II, Dan Arena
Harwood Trophy.....	30	64.400	9/11/49	New York, N. Y.....	ETTA, George Sarant
Edinburgh Trophy.....	9	88.123	9/6/48	Detroit, Mich.....	Z-Z-Zip, Sid Street
266 cu. in. hydro.....	5	87.890	11/10/51	Salton Sea, Calif.....	ALTER EGO, Paul Sawyer
225 cu. in. hydro.....	5	75.821	11/11/51	Salton Sea, Calif.....	I'M IN, Richard Hallert
48 cu. in. hydro.....	5	61.771	11/10/51	Salton Sea, Calif.....	LOU-KAY, Louis Meyer, Jr.
48 cu. in. runabout.....	5	56.005	2/10/52	St. Petersburg.....	MICKEY MOUSE, Mrs. Ruby Scull
91 cu. in. hydroplane.....	5	59.960	2/17/51	St. Petersburg.....	RED WITCH, Jack Van Deman
135 cu. in. hydroplane.....	5	75.157	10/16/48	Salton Sea, Calif.....	MIGHTY CHEVRON, Roy Skaggs
Pacific One-Design hydro.....	5	54.545	11/19/50	Salton Sea, Calif.....	CHERUB II, Dr. L. J. Novotny
Cracker Box inb. runabout.....	5	60.484	10/8/49	Salton Sea, Calif.....	DRAGON-B-HIND, R. Phillips, Jr.
Jersey Speed Skiff.....	5	44.510	8/5/50	Red Bank, N. J.....	FALCON, Ray Morris

(n) — Nautical miles.

HARMSWORTH TROPHY WINNERS

Year	Boat and Country	Speed*
1903—NAPIER I, France.....		19.53
1904—TREFLE-A-QUATRE, England.....		26.63
1905—NAPIER II, England.....		26.03
1906—YARROW-NAPIER, England.....		15.48
1907—DIXIE I, United States.....		31.78
1908—DIXIE II, United States.....		31.347
1910—DIXIE III, United States.....		36.04
1911—DIXIE IV, United States.....		40.28
1912—MAPLE LEAF IV, England.....		43.18
1913—MAPLE LEAF IV, England.....		57.45
1920—MISS AMERICA I, United States.....		61.51
1921—MISS AMERICA II, United States.....		59.75
1926—MISS AMERICA V, United States.....		61.118
1928—MISS AMERICA VII, United States.....		59.325
1929—MISS AMERICA VIII, United States.....		75.287
1930—MISS AMERICA IX, United States.....		77.233
1931—MISS AMERICA VIII, United States.....		85.861
1932—MISS AMERICA X, United States.....		78.489
1933—MISS AMERICA X, United States.....		86.939
1949—SKIP-A-LONG, United States.....		94.285
1950—SLO-MO-SHUN IV, United States.....		100.680

* In statute miles per hour.

† First of hydroplanes to win, predecessors being all displacement craft.

OTHER CHAMPIONS, 1952

Source: Clarence E. Lovejoy.

National Sweepstakes (Red Bank, N. J.)—YOU ALL, Robert Rowland, South Norfolk, Va.
 President's Cup (Washington, D. C.)—MISS PEPSI, Chuck Thompson, Detroit
 Cruisers (New York A. C.—Block Island race)—HURRICANE III, Dr. Allen B. DuMont, Cedar Grove, N. J.
 Silver Cup (Detroit)—GALE II, Danny Foster, Detroit

National Inboard Champions

HYDROPLANES

48 cubic inch (Beaumont, Texas)—BALLERINA II, C. A. Budwine, Beaumont
 91 cubic inch (St. Petersburg, Fla.)—MISS FORT PITT, Tony Margio, Harrisburg, Pa.
 135 cubic inch (Red Bank, N. J.)—WHOOPEE, J. D. Powell, Richmond, Va., and Joe Wolf, Reading, Pa.
 136 stock (Millville, N. J.)—COLD ROD, Edward Carhart, Vineland, N. J.
 225 cubic inch (Cincinnati)—MISS COLUMBUS, Chuck Hunter, Columbus, Ohio
 7 litre (Buffalo, N. Y.)—WILDCATTER, B. G. Bartley, Jr., Columbus, Ohio

RUNABOUTS

48 cubic inch (Beaumont)—DOODLE WHACKER, S. E. Jones, Miami Beach, Fla.
 Class C (St. Petersburg, Fla.)—CYCLONE, Oris Beard, St. Petersburg
 Class D (Buffalo, N. Y.)—MY BOY WOOLLY, Elwood Pilescott, Cambridge, Md.

Other Motorboating Champions, 1952 (Cont.)

RUNABOUTS

- Class E (Buffalo)—HELL'S ANGEL, Sherm Grichfield, St. Petersburg
 Class D service (Buffalo)—LET'S GO II, Tom Hutton, London Bridge, Va.
 Class E service (Buffalo)—MISS ME, William Engle, Washington, Pa.
 Class F service (Buffalo)—NITROGEN, Sam du Pont, Wilmington, Del.

National Outboard Championships

(At Lake Alfred, Fla., Oct. 18)

- Class M hydro—R. D. Frawley, Dravosburg, Pa.
 Class A hydro—Doug Creech, Charlotte, N. C.
 Class B hydro—Paul Wearn, Muncie, Ind.
 Class C hydro—Paul Wearn, Muncie, Ind.
 Class C service hydro—Clyde Wiseman, Willoughby, Ohio
 Class C racing runabout—William Tenney, Dayton, Ohio
 Class C service runabout—Tom Small, Milwaukee
 Class F hydro—Harry Vogts, Madison, Wis.

STOCK OUTBOARD RUNABOUTS

(At Oakland, Calif., Sept. 20)

- JU—Marilyn Donaldson, Dayton, Ohio
 AU—Dean Chenoweth, Xenia, Ohio
 EU—Ronald Zuck, Moraga, N. J.
 CU—John Toppanian, San Diego, Calif.
 DU—Robert Switzer, McHenry, Ill.
 EU—George Churchill, Williams, Oreg.

STOCK HYDROPLANES

(At Oakland, Calif., Sept. 20)

- A—Dean Chenoweth, Xenia, Ohio
 B—Dean Chenoweth
 D—Ivan Harris, Loveland, Colo.

OTHER YACHTING WINNERS

Distance Racing, 1952

- Newport-to-Bermuda—Richard S. Nye's Carina (yaw), Greenwich, Conn.
 Bermuda-to-Plymouth, England—Royal Navy Sailing Association's sloop, Samuel Pepys (Lieut. Cmdr. Erroll Bruce, skipper).
 Miami-to-Nassau—Carleton Mitchell's Caribbee (yaw), Annapolis, Md.
 St. Petersburg-to-Havana—Caribbee, Rochester, N. Y., race (376 miles)—Wendell T. Anderson, Jr.'s Escapade (yaw), Detroit.

Good Time Top Money-winner

Good Time, a 6-year-old pacer owned by William H. Cane of Goshen, N. Y., became harness racing's top all-time money-winner in 1952. By winning the \$6,000 Albany Pace at the Saratoga Raceway in Saratoga Springs, N. Y., in July he moved ahead of Proximity's previous mark of \$252,928 and in October, when he was retired from competition, he had increased his earnings to \$318,792.86.

MOTORCYCLING

Winners of National Championships in 1952

Source: American Motorcycle Association and American Motorcycling magazine.

Event and where held		Road Racing		Machine	Time
		Winner and home city			
100 Miles (Laconia, N. H.)	Dick Klamfoth, Groveport, Ohio	Norton	1:57:57.44		
200 Miles (Daytona Beach, Fla.)	Dick Klamfoth, Groveport, Ohio	Norton	2:17:06.98		
Dirt Track Racing					
HALF-MILE TRACKS					
5 Miles (Strurgis, S. D.)	Everett Brashear, Lake Charles, La.	Harley-Davidson	4:39.7		
7 Miles (Shreveport, La.)	Albert Gunter, Stockton, Calif.	BSA	6:32.3		
8 Miles (Williams Grove, Pa.)	Ernie Beckman, Battle Creek, Mich.	Indian	7:57.17		
10 Miles (Richmond, Va.)	Bobby Hill, Columbus, Ohio	Indian	9:09.05		
MILE TRACKS					
5 Miles (Indianapolis)	Bobby Hill, Columbus, Ohio	Indian	3:56.62		
10 Miles (Syracuse, N. Y.)	Bobby Hill, Columbus, Ohio	Indian	7:28.60		
15 Miles (Milwaukee)	Paul Goldsmith, St. Clair Shores, Mich.	Harley-Davidson	*14:06.09		
20 Miles (San Mateo, Calif.)	Bill Tuman, Rockford, Ill.	Indian	14:41.91		
25 Miles (Springfield, Ill.)	Bobby Hill, Columbus, Ohio	Indian	17:20.66		
* Time for 19 miles.					
Speedway Racing					
MILE TRACK					
100 Miles (Langhorne, Pa.)	Richard Fisher, Glens Falls, N. Y.	Triumph	1:07:32.82		
TWO-MILE TRACK					
200 Miles (Dodge City, Kan.)	Bobby Hill, Columbus, Ohio	Norton	2:24:48.33		
Tourist Trophy Racing					
HALF-MILE COURSE—7 MILES					
45 Cubic Inch (Peoria, Ill.)	Bill Miller, Mountville, Pa.	Harley-Davidson	7:40.93		
80 Cubic Inch (Peoria, Ill.)	Roger Soderstrom, Normal, Ill.	Harley-Davidson	7:32.74		
Class A Hill Climb					
(All events at Muskegon, Mich.)					
45 Cubic Inch, Class B	Larry Franz, Cleveland	Harley-Davidson	9.56		
74 Cubic Inch, Class A	Larry Franz, Cleveland	BSA	8.20		
45 Cubic Inch, Class B final	Larry Franz, Cleveland	Harley-Davidson	9.10		
74 Cubic Inch, Expert final	Howard Mitzel, York, Pa.	Indian	8.50		
Class C Hill Climb					
(All events at Laconia, N. H.)					
45 Cubic Inch Novice	Dorance Johnson, Moline, Ill.	Harley-Davidson	8.57		
80 Cubic Inch Novice	Aubrey Isham, Oakland, Calif.	Harley-Davidson	7.57		
45 Cubic Inch Expert	John Martinolich, Portland, Oreg.	Harley-Davidson	7.88		
80 Cubic Inch Expert	Bart Barker, Spokane, Wash.	Harley-Davidson	7.02		
Endurance Run					
500 Miles (Lansing, Mich.)	Frank Plasecki, Toledo	BSA			

HARNESS RACING

OLIVER WENDELL HOLMES, the famous Autocrat of the Breakfast Table, wrote that the running horse was a gambling toy but the trotting horse was useful and, furthermore, "horse-racing is not a republican institution; horse-trotting is." Oliver Wendell Holmes was a born and bred New Englander and New England was the nursery of the harness racing sport in America. Pacers and trotters were matters of local pride and prejudice in Colonial New England and, shortly after the Revolution, the Messenger and Justin Morgan strains produced many winners in harness racing "matches" along the turnpikes of New York, Connecticut, Rhode Island, Massachusetts, Vermont and New Hampshire.

There was English thoroughbred blood in Messenger and Justin Morgan and, many years later, it was blended in Rysdyk's

Hambletonian, foaled in 1849. Hambletonian was not particularly fast under harness but his descendants have had almost a monopoly of prizes, titles and records in the harness racing game. Hambletonian was purchased as a foal with its dam for a total of \$124 by William Rysdyk of Goshen, N. Y. and made a modest fortune for the purchaser.

Trotters and pacers often were raced under saddle in the old days and, in fact, the custom still survives in some places in Europe. Dexter, the great trotter that lowered the mile record from 2:19¾ to 2:17¼ in 1867, was said to handle just as well under saddle as when pulling a sulky. But as sulkies were lightened in weight and improved in design, trotting under saddle became less common and finally faded out in this country.

Hambletonian Winners

Goshen, N. Y.

(Three-year-old trotters—1 mile)

Run at Syracuse, N. Y., in 1926 and 1928; run at Lexington, Ky., in 1927 and 1929; run at Empire City Race Track, Yonkers, N. Y., in 1943.

Year	Winner	Driver	Best time	Value
1926	Guy McKinney	Nat Ray	2.04 3/4	\$73,451.32
1927	Iosola's Worthy	Marvin Childs	2.03 3/4	54,694.44
1928	Spencer	W. H. Leese	2.02 1/2	66,226.25
1929	Walter Dear	W. R. Cox	2.02 3/4	60,309.60
1930	Hanover's Bertha	Tom Berry	2.03	56,859.84
1931	Calumet Butler	R. McMahon	2.03 1/4	50,921.39
1932	The Marchioness	W. Caton	2.01 1/4	49,489.26
1933	Mary Reynolds	Ben White	2.03 3/4	40,459.88
1934	Lord Jim	H. M. Parshall	2.02 3/4	25,845.44
1935	Greyhound	Sep Palin	2.02 1/4	33,321.00
1936	Rosalind	Ben White	2.01 3/4	35,643.83
1937	Shirley Hanover	H. Thomas	2.01 1/2	37,912.58
1938	McLin Hanover	H. Thomas	2.02 1/4	37,962.37
1939	Peter Astra	H. M. Parshall	2.04 1/4	40,502.46
1940	Spencer Scott	F. Egan	2.02	43,685.45
1941	Bill Gallon	Lee Smith	2.05	38,729.86
1942	The Ambassador	Ben White	2.04	38,954.38
1943	Voio Song	Ben White	2.02 1/2	42,298.03
1944	Yankee Maid	H. Thomas	2.04	33,577.12
1945	Titan Hanover	H. Pownall	2.04	50,196.96
1946	Chestertown	Tom Berry	2.02 1/2	50,995.57
1947	Hoot Mon	Sep Palin	2.00	46,267.93
1948	Demon Hanover	H. R. Hoyt	2.02	59,941.18
1949	Miss Tilly	Fred Egan	2.01 2/5	69,791.08
1950	Lusty Song	Del Miller	2.02	75,209.12
1951	Mainliner	Guy Crippen	2.02 3/5	95,263.93

SUMMARY OF 1952 HAMBLETONIAN

Horse and driver	Heats			Horse and driver	Heats		
	1st	2d	3d		1st	2d	3d
Sharp Note (Bi Shively).....	10	1	1	bVolo Colby (Ralph Baldwin).....	16	16	9
Hit Song (Harry Pownall).....	1	3	2	Crystal Hanover (Henry Myott).....	14	15	†
Duke of Lullwater (John Simpson).....	2	2	3	*Peter Nibble (Dunbar Bostwick).....	13	12	†
aScotch Victor (Joe O'Brien).....	3	5	5	* Field. aJoe O'Brien Stable entry. bRalph Baldwin Stable entry. † Scratched.			
Diplomat Hanover (Frank Ervin).....	5	4	4	Times—2.05, 2.02 2/5, 2.03 2/5. Winner—Bay colt by Phonograph—Rosemary Hanover. Owner—C. W. Clark, Dearborn, Mich.			
Lu Peck (Harry Fitzpatrick).....	4	6	6	Purse distribution—Sharp Note, \$47,236.64; Hit Song, \$17,176.96; Duke of Lullwater, \$10,306.18; Scotch Victor, \$5,153.09; Diplomat Hanover, \$3,435.39; Lu Peck, \$2,576.54; breeder's award, \$1,752.75. Total purse—\$87,637.55. Attendance—15,000.			
Theme Song (Benny Schue).....	9	8	7				
*Hardy Hanover (Sep Palin).....	15	7	8				
*Triumph Hanover (Bob Parkinson)...	7	9	14				
aDallas Hanover (Clint Hodgins).....	6	14	11				
Epicure (Fred Egan).....	8	11	12				
*Leatherwood Day (Jim Hackett).....	11	10	13				
bExcellent Colby (Les Whipkey).....	12	13	10				

WORLD HARNESS RACING RECORDS

(This compilation recognizes as record-holders those horses which have made the fastest time at their gait, age, and hitch, either against time or in a race at one mile.)

Trotting on Mile Track

	Time	Driver	Date	Where made
All-age—Greyhound.....	1.55½	S. F. Palin.....	Sept. 29, 1938	Lexington, Ky.
Yearling—Airdale.....	2.15½	H. C. Moody.....	Oct. 2, 1912	Lexington, Ky.
2-year-old—Titan Hanover.....	2.00	Harry Pownall.....	Oct. 4, 1944	Lexington, Ky.
3-year-old—Titan Hanover.....	1.58	Harry Pownall.....	Sept. 7, 1945	DuQuoin, Ill.
4-year-old—Greyhound.....	1.57¼ (r)	S. F. Palin.....	Aug. 21, 1936	Springfield, Ill.
4-year-old—Spencer Scott.....	1.57½	Fred Egan.....	Sept. 24, 1941	Lexington, Ky.
Lady driver—Dean Hanover.....	1.58½	Alma Sheppard.....	Sept. 24, 1937	Lexington, Ky.
To Wagon—Lou Dillon.....	2.00	C. K. G. Billings.....	Aug. 24, 1903	Readville, Mass.
To Wagon—Uhlan.....	2.00	C. K. G. Billings.....	Aug. 7, 1911	North Randall, Ohio
Team to Pole—Greyhound and Rosalind.....	1.58½	S. F. Palin.....	Sept. 5, 1939	Indianapolis, Ind.
Team, Three Abreast—Calumet Dubuque, Mac Aubrey, Hollyrood Boris.....	2.10½	T. F. Walsh.....	Aug. 14, 1937	Goshen, N. Y.
Team, Tandem—John R. McElwyn and Hollyrood Harrier.....	2.19½	T. F. Walsh.....	Sept. 7, 1936	Rotland, Vt.
Four-in-Hand—Damiana, Belnut, Maud V., Nutsra.....	2.30	Not recorded.....	July 4, 1896	Chicago, Ill.
Under Saddle—Greyhound.....	2.01½	Mrs. F. D. Johnson.....	Sept. 27, 1940	Lexington, Ky.
With Running Mate—Uhlan.....	1.54½	Chas. Tanner.....	Oct. 9, 1913	Lexington, Ky.

(r) Record made in race.

Trotting on Half-mile Track

	Time	Driver	Date	Where made
All-age—Greyhound.....	1.59½	S. F. Palin.....	July 16, 1937	Goshen, N. Y.
Yearling—U. Forbes.....	2.21½	H. C. Moody.....	Sept. 18, 1913	Louisville, Ky.
2-year-old—Titan Hanover.....	2.03½ (r)	Harry Pownall.....	Sept. 19, 1944	Delaware, Ohio
3-year-old—Titan Hanover.....	2.01½	Harry Pownall.....	Sept. 18, 1945	Delaware, Ohio
4-year-old—Star's Pride.....	2.00½ (r)	Harry Pownall.....	July 13, 1951	Saratoga Spgs, N. Y.
To Wagon—Sweet Marie.....	2.08½	W. J. Andrews.....	Sept. 21, 1907	Allentown, Pa.
Team to Pole—Calumet Dubuque and Hollyrood Boris.....	2.06½	T. F. Walsh.....	Aug. 19, 1937	Skowhegan, Me.
Team, Three Abreast—David Thornton, Hollyrood Boris, Capital Stock.....	2.22½	T. F. Walsh.....	July 2, 1937	Gorham, Maine
Under Saddle—Hollyrood Boris.....	2.09	Helen James.....	Sept. 17, 1936	Brockton, Mass.

(r) Record made in race.

Pacing on Mile Track

	Time	Driver	Date	Where made
All-age—Billy Direct.....	1.55	Vic Fleming.....	Sept. 28, 1938	Lexington, Ky.
Yearling—Royal Lady 2nd.....	2.14½	O. M. Powell.....	Oct. 20, 1939	Indianapolis, Ind.
2-year-old—Knight Dream.....	2.00½ (r)	F. E. Safford.....	Oct. 2, 1947	Lexington, Ky.
3-year-old—Solicitor.....	1.57½	Delvin Miller.....	Oct. 1, 1951	Lexington, Ky.
3-year-old—Tar Heel.....	1.57½	Delvin Miller.....	Oct. 2, 1951	Lexington, Ky.
4-year-old—Billy Direct.....	1.55	Vic Fleming.....	Sept. 28, 1938	Lexington, Ky.
Lady Driver—Highland Scott.....	1.59½	Mrs. E. R. Harriman.....	Aug. 22, 1929	Goshen, N. Y.
To Wagon—Dan Patch.....	1.57¼ (w)	M. E. McHenry.....	Oct. 27, 1903	Memphis, Tenn.
Team to Pole—Minor Heir and George Gano.....	2.02	E. J. McCarr.....	Oct. 1, 1912	Columbus, Ohio
Under Saddle—George Gano.....	2.10½	M. Anderson.....	Sept. 2, 1915	Madison, Wis.
With Running Mate—Flying Jib.....	1.58½	A. McDowell.....	Oct. 4, 1894	Chillicothe, Ohio

(r) Record made in race.

(w) With windshield.

Pacing on Half-mile Track

	Time	Driver	Date	Where made
All-age—Sampson Hanover.....	1.59½ (r)	Frank Ervin.....	Sept. 19, 1951	Delaware, Ohio
Yearling—Lady Patch.....	2.18½	O. M. Powell.....	1924	"
2-year-old—Adios.....	2.03½ (r)	R. L. Parker.....	Sept. 16, 1942	Carthage, Ohio
3-year-old—Tar Heel.....	2.00 (r)	Adelbert Cameron.....	Sept. 20, 1951	Delaware, Ohio
4-year-old—Sampson Hanover.....	1.59½ (r)	Frank Ervin.....	Sept. 19, 1951	Delaware, Ohio
To Wagon—Dan Patch.....	2.05 (w)	H. C. Hershey.....	Sept. 21, 1905	Allentown, Pa.
Team to Pole—Billy Direct and The Widower.....	2.04½	Chas. Fleming.....	Oct. 12, 1939	Altamont, N. Y.
Under Saddle—Zombro Hanover.....	2.06½	J. Weipert.....	Sept. 21, 1935	Newark, N. J.

* Data unavailable.

(r) Record made in race.

(w) With windshield.

1952 HARNESS RACING CHAMPIONS

Source: Jim Harrison, Publicity Director, United States Trotting Association.

TROTTERS

(Based on performances at one mile)

Mile Track

	Best time
Aged—Star's Pride	1:57 1/5
4-year-old—Ford Hanover	1:58 3/5
3-year-old—Sharp Note	2:00
2-year-old—Earl's Song	2:03 1/5

Half-Mile Track

Aged—Silver Riddle	2:02 1/5
4-year-old—Yankee Hanover	2:02 1/5
3-year-old—Duke of Lullwater	2:03 1/5
2-year-old—Newport Star	2:05 3/5

PACERS

(Based on performances at one mile)

Mile Track

	Best time
Aged—Sampson Hanover and Tassel Hanover	1:57 4/5
4-year-old—Direct Rhythm	1:56 1/5
3-year-old—Meadow Rice	1:58 1/5
2-year-old—Hillsota	2:00 3/5

Half-Mile Track

Aged—Good Time	2:00 1/5
4-year-old—Shamrock Sally and Solicitor	2:02
3-year-old—Meadow Rice	2:01 3/5
2-year-old—Knight Star	2:04 1/5

STAKES WINNERS IN 1952

Trotting

AGED

	Best time	Value
American Championship—Silver Riddle	2:37 2/5	\$25,000
Golden West—Pronto Don	2:34 4/5	30,650
Gotham Trot—Chris Spencer	2:09	25,000
Merchants & Manufacturers—Gay Diversion	2:05 4/5	18,500
Roosevelt 2-Mile—Chris Spencer	4:16 3/5	60,000

3-YEAR-OLDS

Bloomsburg Futurity—Federal Hanover	2:07	9,367
Coaching Club Oaks—Crystal Hanover	2:07 1/5	18,485
Hanover Filly—Lu Peck	2:02 1/5	15,374
Horseman Futurity—Sharp Note	2:01	24,703
Kentucky Futurity—Sharp Note	2:00	66,231
Old Westbury—Duke of Lullwater	2:05 1/5	11,650
Reading Futurity—Hit Song	2:05 4/5	12,241
Review Futurity—Hit Song	2:01 2/5	15,579
Stallion Stake—Hit Song	2:01 2/5	15,817
The Hambletonian—Sharp Note	2:02 3/5	87,637
The Volomite—Scotch Victor	2:08	11,050
Western—Sharp Note	2:02 4/5	10,500

2-YEAR-OLDS

Acorn Stake—Lively Lady	2:09 2/5	11,777
American-National—Simpson Hanover	2:05 4/5	12,237
Bloomsburg Stake—Abbasong	2:11	13,945
Castleton Stake—Elby Hanover	2:03 2/5	26,070
Greyhound Stake—Elby Hanover	2:05 3/5	16,864
Hanover Filly Stake—Earl's Song	2:03 1/5	15,164
Harriman Cup—Worthy Coburn	2:12	11,500
Horseman Stake—Newport Star	2:06 1/5	30,695
Illinois Fair Stake—Steve Tell	2:14 1/5	40,637
Old Westbury—Lively Lady	2:11 4/5	11,800
Reading Futurity—Victory Mon	2:10	15,549
Reynolds Stake—Singing Sword	2:14	13,920
The Bostwick—Lively Lady	2:08	10,000
The Dean Hanover—Lively Lady	2:08 2/5	12,250
Tompkins Memorial—Singing Sword	2:08 2/5	17,200
Walnut Hall Stud—Kimberly Kid	2:05 3/5	16,200

Pacing

AGED

	Best time	Value
Farewell Pace—Good Time	2:01	\$15,000
Golden West—Dudley Hanover	2:30 3/5	31,480
Motor City—Mr. Dean	2:03 1/5	18,475
Nassau 2-Mile—Dudley Hanover	4:16 2/5	60,000
National Derby—Good Time	2:31 3/5	25,000
Sportsman's Derby—Choice Hanover	2:09 3/8	25,000
Yonkers Derby—Direct Rhythm	3:19	25,000

3-YEAR-OLDS

American-National—Thunderclap	1:59 4/5	10,203
Bloomsburg Stake—Meadow Rice	2:05 1/5	10,067
Geers Stake—Adio Abs	2:03	7,119
Hanover Filly—Silent Waters	2:03	15,512
Horseman Futurity—Thunderclap	2:01 2/5	17,103
Jug Preview—Thunderclap	2:04	10,000
Ladyship—My Time	2:07 1/5	10,396
Little Brown Jug—Meadow Rice	2:01 3/5	60,463
Reading Futurity—Meadow Rice	2:03 2/5	12,791
Review Futurity—Voting Trust	2:01	10,745
Reynolds Stake—Mighty Brewer	2:07	10,142
The Adios—Adio Abs	2:01 4/5	11,500
Western—Express Chief	2:03	11,350

2-YEAR-OLDS

Bloomsburg Stake—Knight Star	2:07 1/5	12,135
Debutante Stake—Precious Hal	2:07 4/5	11,186
Fox Stake—Iosola's Ensign	2:03	32,542
Geers Stake—Keystone	2:04 2/5	16,081
Goshen Cup—Knight Star	2:07 1/5	12,120
Hanover Filly—Pleasant Surprise	2:02	16,049
Illinois Colt Stake—Gene Jester	2:07 4/5	40,537
Little Pat—Iosola's Ensign	2:03 4/5	17,402
McMahon Memorial—Iosola's Ensign	2:02 2/5	25,645
Ohio Futurity—Keystone	2:07 2/5	11,277
Reading Futurity—Knight Star	2:06 1/5	14,499
Reynolds Stake—Newport Chief	2:08 4/5	13,320
The Tennessee—Hillsota	2:00 3/5	10,080
Two Galts Farm—Hillsota	2:02 2/5	17,320
Village Farm—Chief Claire	2:10 1/5	12,863
Walnut Hall Farm—Countess Vivian	2:06 2/5	10,060

WORLD RECORDS MADE IN 1952

Trotting

Distance	Track	Made by	Place	Date	Time
1 mile	mile	Star's Pride	Du Quoin, Ill.	Aug. 29	1:57 1/5
1 mile	half mile	Old Blue Hen	Delaware, Ohio	Sept. 16	2:06 3/5
1 mile	half mile	Lu Peck	Delaware, Ohio	Sept. 16	2:04 3/5

Pacing

1 1/4 miles	half mile	Good Time	Westbury, N. Y.	July 3	2:31 3/5
1 mile	mile	Sampson Hanover	Springfield, Ill.	Aug. 13	1:47 4/5
1 mile	mile	Iosola's Ensign	Lexington, Ky.	Sept. 24	2:02 2/5
1 mile	mile	Direct Rhythm	Lexington, Ky.	Sept. 25	1:53
1 mile	mile	Prince Adios	Lexington, Ky.	Sept. 30	1:53
1 mile	mile	Evalina Hanover	Lexington, Ky.	Oct. 17	1:59 4/5

HORSE RACING

ANCIENT DRAWINGS on stone and bone prove that horse racing is at least 3000 years old, but Thoroughbred Racing is a modern development. Practically every thoroughbred in training today traces its registered ancestry back to one or more of three sires that arrived in England about 1728 from the Near East and became known, from the names of their owners, as the Byerly Turk, the Darley Arabian and the Godolphin Arabian. The Jockey Club (English) was founded at Newmarket in 1750 or 1751 and became the custodian of the Stud Book as well as the court of last resort in deciding turf affairs.

There was horse racing in this country before the Revolution, but the great lift to the breeding industry came with the importation in 1798, by Col. John Hoomes of Virginia, of Diomed, winner of the Epsom Derby of 1780. Diomed's lineal descendants included such famous stars of the American turf as American Eclipse and Lexington. From 1800 to the time of the Civil War there were race courses and breeding establishments plentifully scattered through Virginia, North Carolina, South Carolina, Tennessee, Kentucky and

Louisiana. In fact, thoroughbred racing was largely a Southern sport and that was one reason why the Confederacy had such excellent cavalry in the Civil War. A century ago crack horses were matched in four-mile races that were run in heats, best two out of three!

The oldest stake event in North America is the Queen's Plate, a Canadian fixture that was first run in the Province of Quebec in 1836. The oldest stake event in the United States is The Travers, which was first run at Saratoga in 1864. The gambling that goes with horse racing and trickery by jockeys, trainers, owners and track officials caused attacks on the sport by reformers and a demand among horse racing enthusiasts for an honest and effective control of some kind, but nothing of lasting value to racing came of this until the formation of The Jockey Club in 1894. The Jockey Club, composed of fifty members chosen from the aristocracy of the turf, was all-powerful in racing regulation until the State Racing Commissions came into being as a result of mutual betting and the great revenues that came with the tax on the "daily handle."

Horse Racing Statistics

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HISTORY OF TRADITIONAL STAKES

AMERICAN DERBY

Washington Park; 3-year-olds; 1½ miles.

Run at old Washington Park, Chicago, through 1904; run at Hawthorne in 1916; run at Arlington Park in 1928. Distance 1½ miles until 1928; 1¼ miles until 1952.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1884	Modesty.....	I. Murphy.....	117	\$10,700	1929	Windy City.....	L. McDermott....	118	\$47,550
1885	Volante.....	I. Murphy.....	123	9,570	1930	Reveille Boy.....	W. Fronk.....	118	51,200
1886	Silver Cloud.....	I. Murphy.....	121	8,160	1931	Mate.....	G. Ellis.....	126	48,670
1887	C. H. Todd.....	Hamilton.....	118	13,690	1932	Gusto.....	S. Coucel.....	118	48,205
1888	Emperor of Norfolk	I. Murphy.....	123	14,340	1933	Mr. Khayyara.....	P. Walls.....	121	23,410
1889	Spokane.....	T. Kiley.....	121	15,400	1934	Cavalcade.....	M. Garner.....	126	23,315
1890	Uncle Bab.....	T. Kiley.....	115½	15,260	1935	Black Helen.....	D. Meade.....	118	25,020
1891	Strathmeath.....	Covington.....	112	18,610	1937	Dawn Play.....	L. Balaski.....	116	25,400
1892	Carlsbad.....	R. Williams.....	122	16,930	1940	Miland.....	J. Adams.....	123	44,900
1893	Boundless.....	E. Garrison.....	122	49,500	1941	Whirlaway.....	A. Robertson.....	126	44,970
1894	Rey el S'ta A'ta.....	E. Van Kuren.....	122	19,750	1942	Alsab.....	G. Woolf.....	126	60,855
1898	Pink Coat.....	W. Martin.....	127	9,225	1943	Askmenow.....	G. Woolf.....	115	56,150
1900	Sidney Lucas.....	J. Bullman.....	122	9,425	1944	By Jimminy.....	G. Woolf.....	122	61,650
1901	Robert Waddell.....	J. Bullman.....	119	19,275	1945	Fighting Step.....	G. South.....	118	68,950
1902	Wyeth.....	L. Lyne.....	122	19,875	1946	Eternal Reward.....	R. Campbell.....	118	83,455
1903	The Picket.....	Helgesen.....	115	27,025	1947	Fervent.....	D. Dodson.....	118	70,950
1904	Highball.....	G. C. Fuller.....	122	26,325	1948	Citation.....	E. Arcaro.....	126	66,450
1916	Dodge.....	F. Murphy.....	126	6,850	1949	Ponder.....	S. Brooks.....	126	66,150
1926	Boot to Boot.....	A. Johnson.....	121	89,000	1950	Hill Prince.....	E. Arcaro.....	126	60,050
1927	Hydromel.....	L. McDermott.....	116	22,750	1951	Hall of Fame.....	T. Atkinson.....	122	61,200
1928	Go.....	E. Ambruse.....	126	21,920	1952	Mark-Ye-Well.....	E. Arcaro.....	120	103,525

ARLINGTON CLASSIC

Arlington Park; 3-year-olds; 1 mile.

Distance 1 1/4 miles from 1929 to 1951, inclusive. Run at Washington Park in 1943, 1944 and 1945.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1929	Blue Larkspur.....	M. Garner.....	126	\$59,900	1941	Attention.....	C. Bierman.....	121	42,450
1930	Gallant Fox.....	E. Sande.....	126	64,750	1942	Shut Out.....	E. Arcaro.....	126	69,700
1931	Mate.....	A. Robertson.....	126	73,650	1943	Slide Rule.....	F. Zufelt.....	120	53,450
1932	Gusto.....	S. Coucci.....	126	76,600	1944	Twilight Tear.....	L. Haas.....	114	62,050
1933	Inlander.....	R. Jones.....	118	32,755	1945	Pot o' Luck.....	D. Dodson.....	119	67,150
1934	Cavalcade.....	M. Garner.....	126	30,325	1946	The Dude.....	M. Duhon.....	119	76,850
1935	Omaha.....	W. D. Wright.....	126	28,975	1947	But Why Not.....	W. Mehrtens.....	117	71,500
1936	Granville.....	J. Stout.....	126	28,400	1948	Papa Redbird.....	R. L. Baird.....	122	66,600
1937	Flying Scot.....	J. Gilbert.....	123	27,375	1949	Ponder.....	S. Brooks.....	126	65,450
1938	Nedeyr.....	W. D. Wright.....	121	27,500	1950	Greek Song.....	O. Scurlock.....	120	58,950
1939	Challedon.....	H. Richards.....	126	35,600	1951	Hall of Fame.....	T. Atkinson.....	120	62,975
1940	Sirocco.....	G. Woolf.....	121	37,935	1952	Mark-Ye-Well.....	E. Arcaro.....	112	105,375

ARLINGTON FUTURITY

Arlington Park; 2-year-olds; 3/4 mile.

American National Futurity in 1927 and 1928. Run at Washington Park from 1943 to 1945, inclusive.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1927	Misstep.....	E. Pool.....	122	\$ 9,360	1942	Occupation.....	L. Balaski.....	117	51,500
1928	Double Heart.....	L. Geving.....	115	21,920	1943	Jezrahel.....	O. Grohs.....	116	48,650
1932	Ladysman.....	R. Jones.....	117	38,010	1944	Free for All.....	O. Grohs.....	122	48,525
1933	Far Star.....	D. Bellizzi.....	116	31,020	1945	Spy Song.....	S. Brooks.....	122	58,650
1934	Toro Nancy.....	R. Jones.....	112	41,725	1946	Cosmic Bomb.....	S. Clark.....	122	66,875
1935	Grand Slam.....	J. Bryson.....	122	45,135	1947	Piet.....	Deli Jessop.....	122	66,900
1936	Case Ace.....	A. Robertson.....	117	36,540	1948	Mr. Bushor.....	F. Zufelt.....	122	62,725
1937*	Tiger.....	A. Robertson.....	122		1949	Wisconsin Boy.....	J. Chestnut.....	122	60,075
	Teddy's Comet.....	G. Smith.....	117	18,000	1950	To Market.....	A. Rivera.....	122	56,215
1938	Thingumabob.....	E. Arcaro.....	117	31,110	1951	Hill Gail.....	S. Brooks.....	122	64,140
1939	Andy K.....	J. E. Oros.....	114	33,735	1952	Mr. Good.....	D. Dodson.....	122	81,575
1940	Swain.....	J. Adams.....	117	34,470					
1941	Sun Again.....	W. Eads.....	122	34,655					

* Dead heat.

BELMONT FUTURITY

Belmont Park; 2-year-olds; 6 1/4 furlongs

Distance 1,263 yards 1 foot from 1892 to 1901, inclusive. Distance 3/4 mile prior to 1892 and from 1902 to 1924, inclusive; about 7/8 mile from 1925 to 1933, inclusive. Run at Sheepshead Bay until 1910. Run at Saratoga by special arrangement in 1910, 1913 and 1914.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1888	Proctor Knott.....	S. Barnes.....	112	\$40,900	1922	Sally's Alley.....	A. Jonsson.....	116	47,550
1889	Chaos.....	G. Day.....	109	54,500	1923	St. James.....	T. McTaggart.....	130	64,810
1890	Potomac.....	A. Hamilton.....	115	67,675	1924	Mother Goose.....	L. McAttee.....	114	65,730
1891	His Highness.....	J. McLaughlin.....	130	61,675	1925	Pompey.....	L. Fator.....	127	58,480
1892	Morello.....	W. Hayward.....	118	40,450	1926	Scapa Flow.....	L. Fator.....	122	65,980
1893	Domino.....	F. Taral.....	130	48,855	1927	Anita Peabody.....	C. Lang.....	124	91,790
1894	The Butterflies.....	H. Griffin.....	112	48,710	1928	High Strung.....	L. McAttee.....	122	97,990
1895	Requital.....	H. Griffin.....	115	53,190	1929	Whicnone.....	R. Workman.....	125	105,730
1896	Ogden.....	F. Trubville.....	115	43,790	1930	Jamestown.....	L. McAttee.....	130	99,600
1897	L'Alouette.....	R. Clawson.....	115	34,290	1931	Top Flight.....	R. Workman.....	127	94,780
1898	Martins.....	H. Lewis.....	118	36,610	1932	Kerry Patch.....	P. Walls.....	122	88,690
1899	Chacornac.....	H. Spencer.....	114	30,630	1933	Singing Wood.....	R. Jones.....	122	81,700
1900	Ballyhoo Bey.....	T. Sloan.....	112	33,580	1934	Chance Sun.....	W. D. Wright.....	122	77,510
1901	Yankee.....	W. O'Connor.....	119	36,850	1935	Tintagel.....	S. Coucci.....	122	66,450
1902	Savable.....	L. Lyne.....	119	44,500	1936	Pompoon.....	H. Richards.....	127	55,630
1903	Hamburg Belle.....	G. Fuller.....	114	36,600	1937	Menow.....	C. Kurtzinger.....	119	56,800
1904	Artful.....	E. Hildebrand.....	114	40,830	1938	Porter's Mile.....	B. James.....	119	57,045
1905	Ormondale.....	A. Redfern.....	117	32,960	1939	Bimelech.....	F. A. Smith.....	126	57,710
1906	Electioneer.....	W. Shaw.....	117	36,880	1940	Our Boots.....	E. Arcaro.....	119	65,800
1907	Coin.....	W. Miller.....	125	26,640	1941	Some Chance.....	W. Eads.....	122	57,900
1908	Maskette.....	J. Notter.....	118	26,110	1942	Occupation.....	G. Woolf.....	126	57,890
1909	Sweep.....	J. Butwell.....	126	24,100	1943	Occupy.....	G. Woolf.....	126	55,635
1910	Novely.....	C. H. Shilling.....	127	25,360	1944	Pavot.....	G. Woolf.....	126	53,890
1913	Pennant.....	C. Borel.....	119	15,060	1945	Star Pilot.....	A. Kirkland.....	126	52,940
1914	Trojan.....	C. Burlingame.....	117	16,010	1946	First Flight.....	E. Arcaro.....	123	73,350
1915	Thunderer.....	J. Notter.....	122	16,590	1947	Citation.....	A. Snider.....	122	78,430
1916	Campfire.....	J. McTaggart.....	125	17,340	1948	Blue Peter.....	E. Guerin.....	126	88,410
1917	Papp.....	L. Allen.....	127	15,600	1949	Guillotine.....	T. Atkinson.....	122	87,585
1918	Dunboyne.....	A. Schutlinger.....	127	23,360	1950	Battlefield.....	E. Arcaro.....	122	81,715
1919	Man o' War.....	J. Loftus.....	127	26,650	1951	Tom Fool.....	T. Atkinson.....	122	86,710
1920	Step Lightly.....	F. Keogh.....	116	35,870	1952	Native Dancer.....	E. Guerin.....	122	82,845
1921	Bunting.....	F. Coliletti.....	117	39,700					

BELMONT STAKES

Belmont Park; 3-year-olds; 1½ miles.

Run at Jerome Park prior to 1890; run at Morris Park from 1890 to 1905. Distance 1½ miles prior to 1874; reduced to 1¼ miles, 1874; reduced to 1½ miles, 1890; changed to 1¼ miles, 1893; increased to 1½ miles, 1895; increased to 1½ miles, 1896; changed to 1½ miles in 1904 and 1905; increased to 1½ miles, 1928.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1867	Ruthless.....	J. Gilpatrick.....	107	\$ 1,850	1909	Joe Madden.....	E. Dugan.....	126	24,550
1868	General Duke.....	R. Swim.....	110	2,800	1910	Sweep.....	J. Butwell.....	126	9,700
1869	Fenian.....	C. Miller.....	110	3,350	1913	Prince Eugene.....	R. Trexler.....	109	2,825
1870	Kingfisher.....	W. Dick.....	110	3,750	1914	Luke McLuke.....	M. Buxton.....	126	3,025
1871	Harry Bassett.....	W. Miller.....	110	5,450	1915	The Finn.....	G. Byrnes.....	126	1,825
1872	Joe Daniels.....	J. Rowe.....	110	4,500	1916	Friar Rock.....	E. Haynes.....	126	4,100
1873	Springbok.....	J. Rowe.....	110	5,200	1917	Hourless.....	J. Butwell.....	126	5,800
1874	Saxon.....	G. Bardee.....	110	4,200	1918	Johren.....	F. Robinson.....	126	8,950
1875	Calvin.....	R. Swim.....	110	4,450	1919	Sir Barton.....	J. Loftus.....	126	11,950
1876	Algerine.....	W. Donohue.....	110	3,700	1920	Man o' War.....	C. Kummer.....	126	7,950
1877	Cloverbrook.....	C. Holloway.....	110	5,200	1921	Grey Lag.....	E. Sande.....	126	8,650
1878	Duke of Magenta.....	L. Hughes.....	118	3,850	1922	Pillory.....	C. H. Miller.....	126	39,200
1879	Spendthrift.....	S. Evans.....	118	4,250	1923	Zev.....	E. Sande.....	126	38,000
1880	Grenada.....	L. Hughes.....	118	2,800	1924	Mad Play.....	E. Sande.....	126	42,880
1881	Saunterer.....	T. Costello.....	118	3,000	1925	American Flag.....	A. Johnson.....	126	38,500
1882	Forester.....	J. McLaughlin.....	118	2,600	1926	Crusader.....	A. Johnson.....	126	48,550
1883	George Kinney.....	J. McLaughlin.....	118	3,070	1927	Chance Shot.....	E. Sande.....	126	60,910
1884	Panique.....	J. McLaughlin.....	118	3,150	1928	Vito.....	C. Kummer.....	126	63,430
1885	Tyrant.....	P. Duffy.....	118	2,710	1929	Blue Larkspur.....	M. Garner.....	126	59,650
1886	Inspector B.....	J. McLaughlin.....	118	2,720	1930	Gallant Fox.....	E. Sande.....	126	66,040
1887	Hanover.....	J. McLaughlin.....	118	2,900	1931	Twenty Grand.....	C. Kurtzinger.....	126	58,770
1888	Sir Dixon.....	J. McLaughlin.....	118	3,440	1932	Faireno.....	T. Malley.....	126	55,120
1889	Eric.....	W. Hayward.....	118	4,960	1933	Hurryhoff.....	M. Garner.....	126	49,490
1890	Burlington.....	S. Barnes.....	118	8,560	1934	Peace Chance.....	W. D. Wright.....	126	43,410
1891	Foxford.....	E. Garrison.....	118½	5,070	1935	Omaha.....	W. Saunders.....	126	35,480
1892	Patron.....	W. Hayward.....	122	6,610	1936	Granville.....	J. Stout.....	126	29,800
1893	Comanche.....	W. Simms.....	117	5,310	1937	War Admiral.....	C. Kurtzinger.....	126	38,020
1894	Henry of Navarre.....	W. Simms.....	117	6,680	1938	Pasteurized.....	J. Stout.....	126	34,530
1895	Balmar.....	F. Taral.....	119	2,700	1939	Johnstown.....	J. Stout.....	126	37,020
1896	Hastings.....	H. Griffin.....	122	3,025	1940	Bimelech.....	F. A. Smith.....	126	35,030
1897	Scottish Chieftain.....	J. Scherrer.....	115	3,550	1941	Whirlaway.....	E. Arcaro.....	126	39,770
1898	Bowling Brook.....	F. Littlefield.....	122	7,810	1942	Shut Out.....	E. Arcaro.....	126	44,520
1899	Jean Beraud.....	R. Clawson.....	122	9,445	1943	Count Fleet.....	J. Langden.....	126	35,340
1900	Ildrim.....	N. Turner.....	126	14,790	1944	Bounding Home.....	G. L. Smith.....	126	55,000
1901	Commando.....	H. Spencer.....	126	11,595	1945	Pavot.....	E. Arcaro.....	126	52,675
1902	Masterman.....	J. Bullman.....	126	13,220	1946	Assault.....	W. Mehrtens.....	126	75,400
1903	Africander.....	J. Bullman.....	126	12,285	1947	Phalanx.....	R. Donoso.....	126	78,900
1904	Delhi.....	G. Odom.....	126	11,575	1948	Citation.....	E. Arcaro.....	126	77,700
1905	Tanya.....	E. Hildebrand.....	121	17,240	1949	Capot.....	T. Atkinson.....	126	60,900
1906	Burgomaster.....	L. Lyne.....	126	22,700	1950	Middleground.....	W. Boland.....	126	61,350
1907	Peter Pan.....	G. Mountain.....	126	22,765	1951	Counterpoint.....	D. Gorman.....	126	82,000
1908	Colin.....	J. Notter.....	126	22,765	1952	One Count.....	E. Arcaro.....	126	82,400

EPSOM DERBY

Epsom Downs, England; 3-year-olds; 1 mile, 885 yards.

Distance one mile prior to 1784. Distance 1¼ miles since 1939. Run at Newmarket from 1915 to 1918, inclusive and from 1940 to 1945, inclusive, and called the New Derby Stakes.

Year	Winner	Owner	Win val.	Year	Winner	Owner	Win val.
1780	Otomed.....	Sir C. Bunbury.....	\$ 5,620	1798	Sir Harry.....	Mr. Cookson.....	5,375
1781	Y. Eclipse.....	Mr. O'Kelly.....	6,255	1799	Archduke.....	Sir F. Standish.....	5,000
1782	Assassin.....	Lord Egremont.....	5,500	1800	Champion.....	Mr. Wilson.....	5,250
1783	Saltram.....	Mr. Parker.....	5,000	1801	Eleanor.....	Sir C. Bunbury.....	4,375
1784	Sergeant.....	Mr. O'Kelly.....	5,125	1802	Tyrant.....	Duke of Grafton.....	4,750
1785	Aimwell.....	Lord Clermont.....	4,375	1803	Ditto.....	Sir H. Williamson.....	4,625
1786	Noble.....	Mr. Pantom.....	5,000	1804	Hannibal.....	Lord Egremont.....	4,625
1787	Sir P. Teazle.....	Lord Derby.....	4,500	1805	Card. Beaufort.....	Lord Egremont.....	6,250
1788	Sir Thomas.....	Prince of Wales.....	4,625	1806	Paris.....	Lord Foley.....	5,875
1789	Skyscraper.....	Duke of Bedford.....	4,652	1807	Election.....	Lord Egremont.....	5,875
1790	Rhadamanthus.....	Lord Grosvenor.....	4,750	1808	Pen.....	Sir H. Williamson.....	5,500
1791	Eager.....	Duke of Bedford.....	4,625	1809	Pope.....	Duke of Grafton.....	6,375
1792	John Bull.....	Lord Grosvenor.....	4,875	1810	Whalebone.....	Duke of Grafton.....	6,500
1793	Waxy.....	Sir F. Poole.....	6,500	1811	Phantom.....	Sir J. Shelley.....	7,500
1794	Daedalus.....	Lord Grosvenor.....	6,125	1812	Octavius.....	Mr. Ladbroke.....	7,125
1795	Spread Eagle.....	Sir F. Standish.....	6,500	1813	Smolensko.....	Sir C. Bunbury.....	7,375
1796	Didelot.....	Sir F. Standish.....	6,500	1814	Blucher.....	Lord Stawell.....	7,125
1797	Colt by Fidget.....	Duke of Bedford.....	5,000	1815	Whisker.....	Duke of Grafton.....	7,500

Epsom Derby (Cont.)

Year	Winner	Owner	Win Val.	Year	Winner	Owner	Win val.
1816	Prince Leopold.....	Duke of York.....	7,250	1886	Ormonde.....	D. of Westminster.....	23,500
1817	Azor.....	Mr. Payne.....	8,625	1887	Mer. Hampton.....	Mr. Abington.....	22,625
1818	Sam.....	Mr. Thornhill.....	8,500	1888	Ayrshire.....	Duke of Portland.....	18,375
1819	Tiresias.....	Duke of Portland.....	8,250	1889	Donovan.....	Duke of Portland.....	20,250
1820	Sailor.....	Mr. Thornhill.....	7,875	1890	Sanfoin.....	Sir J. Miller.....	29,700
1821	Gustavus.....	Mr. Hunter.....	7,875	1891	Common.....	Sir F. Johnstone.....	27,550
1822	Moses.....	Duke of York.....	7,625	1892	Sir Hugo.....	Lord Bradford.....	34,900
1823	Emilius.....	Mr. Udny.....	8,375	1893	Isinglass.....	Mr. McCalmont.....	27,575
1824	Cedric.....	Sir J. Shelley.....	8,875	1894	Ladas.....	Lord Rosebery.....	27,250
1825	Middleton.....	Lord Jersey.....	9,000	1895	Sir Visto.....	Lord Rosebery.....	27,250
1826	Lap Dog.....	Lord Egremont.....	9,000	1896	Persimmon.....	Prince of Wales.....	27,250
1827	Mameluke.....	Lord Jersey.....	13,500	1897	Galtee More.....	Mr. Gubbins.....	27,250
1828	Cadland.....	Duke of Rutland.....	13,000	1898	Jeddah.....	J. Larnach.....	27,250
1829	Frederick.....	Mr. Gratwicke.....	12,750	1899	Flying Fox.....	D. of Westminster.....	27,250
1830	Priam.....	Mr. Chifney.....	13,500	1900	Diamond Jubilee.....	Prince of Wales.....	27,250
1831	Spaniel.....	Lord Lowther.....	15,500	1901	Volodyovskij.....	W. C. Whitney.....	28,350
1832	St. Giles.....	Mr. Ridsdale.....	14,375	1902	Arct Patrick.....	J. Gubbins.....	27,250
1833	Dangerous.....	Mr. Saddler.....	17,625	1903	Rock Sand.....	Sir J. Miller.....	32,500
1834	Plenipotentiary.....	Mr. Batson.....	17,125	1904	St. Amant.....	L. de Rothschild.....	32,250
1835	Mundig.....	Mr. Bowes.....	16,750	1905	Cicero.....	Lord Rosebery.....	32,250
1836	Bay Middleton.....	Lord Jersey.....	18,125	1906	Spearmint.....	Maj. E. Loder.....	32,250
1837	Phosphorus.....	Lord Berner.....	14,000	1907	Orby.....	R. Croker.....	32,250
1838	Amato.....	Sir G. Heatcote.....	18,265	1908	Signorinetta.....	Chev. Ginstrelli.....	32,250
1839	Bloomsbury.....	Mr. W. Ridsdale.....	19,500	1909	Minor.....	King Edward.....	32,250
1840	Little Wonder.....	Mr. Robertson.....	19,125	1910	Lemberg.....	Mr. Fairie.....	32,250
1841	Coronation.....	Mr. Rawlinson.....	21,875	1911	Sunstar.....	J. B. Joel.....	32,250
1842	Attila.....	Colonel Anson.....	24,500	1912	Tagalie.....	W. Raphael.....	32,250
1843	Cotherstone.....	Mr. Bowes.....	21,250	1913	Abeyeur.....	A. P. Cunliffe.....	32,250
1844	Orlando.....	Colonel Peel.....	21,750	1914	Durbar II.....	H. B. Duryea.....	32,250
1845	Merry Monarch.....	Mr. Gratwick.....	20,000	1915	Pommern.....	S. Joel.....	12,000
1846	Pyrrhus the First.....	Mr. Gully.....	26,500	1916	Finella.....	E. Hulton.....	14,500
1847	Cossack.....	Mr. Pedley.....	26,500	1917	Gay Crusader.....	Mr. Fairie.....	19,250
1848	Surplice.....	Lord Clifton.....	28,000	1918	Gainsborough.....	Lady Jas. Douglas.....	20,000
1849	T. Flying Dutchman.....	Lord Eglinton.....	31,875	1919	Grand Parade.....	Lord Glanely.....	32,250
1850	Voltigeur.....	Lord Zetland.....	29,375	1920	Spion Kop.....	Maj. G. Loder.....	32,250
1851	Teddington.....	Sir J. Hawley.....	26,875	1921	Humorist.....	J. B. Joel.....	32,250
1852	Dan. O'Rourke.....	Mr. Bowes.....	24,350	1922	Captain Cuttle.....	Lord Woolavington.....	51,250
1853	W. Australian.....	Mr. Bowes.....	26,500	1923	Papyrus.....	Ben Irish.....	56,800
1854	Andover.....	Mr. Gully.....	29,250	1924	Sansovino.....	Lord Derby.....	59,025
1855	Wild Dayrell.....	F. Popham.....	24,125	1925	Manna.....	H. E. Morris.....	55,475
1856	Ellinton.....	Admiral Harcourt.....	28,125	1926	Coronach.....	Lord Woolavington.....	51,750
1857	Blink Bonny.....	W. l'Anson.....	27,750	1927	Call Boy.....	Frank Curzon.....	63,075
1858	Beadsman.....	Sir J. Hawley.....	26,615	1928	Felstead.....	Sir H. C'liffe-Owen.....	58,025
1859	Musjid.....	Sir J. Hawley.....	33,250	1929	Trigo.....	W. Barnett.....	59,825
1860	Thormanby.....	Mr. Merry.....	30,500	1930	Blenheim.....	H. H. Aga Khan.....	50,180
1861	Kettledrum.....	Colonel Towneley.....	30,500	1931	Cameronian.....	J. A. Dewar.....	48,640
1862	Caractacus.....	Mr. Snewing.....	32,125	1932	April the Fifth.....	T. Walls.....	34,056
1863	Macaroni.....	R. C. Naylor.....	34,500	1933	Hyperion.....	Lord Derby.....	49,182
1864	Blair Athol.....	W. l'Anson.....	32,500	1934	Windsor Lad.....	H. H. M. of Raj'pla.....	46,760
1865	Gladiator.....	C'nt F. deLagrange.....	34,375	1935	Bahram.....	H. H. Aga Khan.....	46,080
1866	Lord Lyon.....	R. Sutton.....	37,750	1936	Mahmoud.....	H. H. Aga Kahn.....	49,670
1867	Hermit.....	Mr. Chaplin.....	35,000	1937	Mid-Day Sun.....	Mrs. G. B. Miller.....	47,205
1868	Blue Gown.....	Sir J. Hawley.....	34,000	1938	Bois Roussel.....	P. Beatty.....	43,644
1869	Pretender.....	J. Johnstone.....	31,125	1939	Blue Peter.....	Lord Rosebery.....	42,680
1870	Kingcraft.....	Lord Falmouth.....	38,875	1940	Pont l'Eveque.....	F. Darling.....	23,803
1871	Favonius.....	B. Rothschild.....	25,625	1941	Owen Tudor.....	Mrs. M'D'ald-Buc'n.....	18,003
1872	Cremona.....	H. Savile.....	24,250	1942	Watling Street.....	Lord Derby.....	15,530
1873	Doncaster.....	Mr. Merry.....	24,125	1943	Straight Lead.....	Miss Dorothy Paget.....	17,552
1874	Geo. Frederick.....	W. S. Cartwright.....	26,750	1944	Ocean Swell.....	Lord Rosebery.....	23,604
1875	Calopin.....	Prince Bathany.....	24,750	1945	Dante.....	Sir Eric Ohlson.....	33,356
1876	Kisber.....	A. Baltazzi.....	27,875	1946	Airborne.....	J. E. Ferguson.....	38,662
1877	Silbio.....	Lord Falmouth.....	30,250	1947	Pearl Diver.....	B. G. de Waldner.....	38,788
1878	Sefton.....	W. S. Crawford.....	29,125	1948	My Love.....	H. H. Aga Khan.....	49,936
1879	Sir Bevis.....	Mr. Acton.....	35,125			Leon Volterra.....	
1880	Bend Or.....	D. of Westminster.....	31,875	1949	Nimbus.....	Mrs. M. Glenister.....	56,980
1881	Iroquoist.....	P. Lorillard.....	29,625	1950	Galcador.....	Marcel Brussac.....	47,628
1882	Shotover.....	D. of Westminster.....	23,875	1951	Arctic Prince.....	Joseph McGrath.....	54,561
1883	St. Blaise.....	Sir F. Johnstone.....	25,750	1952	Tulyar.....	H. H. Aga Khan.....	57,643
1884*	St. Gatien.....	J. Hammond.....					
	Harvester.....	Sir J. Willoughby.....	24,500				
1885	Melton.....	Lord Hastings.....	22,625				

* Dead heat; stake divided. † American bred or owned.

GRAND NATIONAL STEEPLECHASE

Liverpool, England; 6-year-olds and over; 4 miles, 856 yards (Aintree Course)

Year	Winner	Owner	Starters	Value	Year	Winner	Owner	Starters	Value
1839	Lottery	J. Elmore	17		1896	The Soarer	Lord Wavertree	28	9,875
1840	Jerry	Mr. Villebois	12		1897	Manifesto	H. M. Dyas	28	9,875
1841	Charity	Lord Craven	11		1898	Drogheda	C. G. Adams	25	9,875
1842	Gaylad	J. Elmore	15		1899	Manifesto	J. G. Bulteel	19	9,875
1843	Vanguard	Lord Chesterfield	16		1900	Ambush II	Prince of Wales	16	9,875
1844	Pioneer	Mr. Quartermaine	22		1901	Grudon	B. Bletsoe	24	9,875
1845	Cure All	W. S. Crawford	15		1902	Shannon Lass	A. Gorham	21	10,000
1846	Pioneer	Mr. Adams	22		1903	Drumcree	J. S. Morrison	23	10,000
1847	Matthew	Mr. Courtenay	26		1904	Moifaa	G. H. Gollan	26	10,000
1848	Chandler	Capt. Little	30		1905	Kirkland	F. Bibby	27	10,125
1849	Peter Simple	Mr. S. Mason, Jr.	24	\$4,025	1906	Ascetic's Silver	Prince Hatzfeldt	23	10,875
1850	Abd el Kader	Mr. Osborne	32		1907	Eremon	S. Howard	23	12,000
1851	Abd el Kader	Mr. Osborne	21		1908	Rubio†	Maj. F. Douglas		
1852	Miss Mowbray	T. F. Mason	24	3,400			Pennant	24	12,000
1853	Peter Simple	Capt. Little	21		1909	Lutteur III	J. Hennessy	32	12,000
1854	Bourton	Mr. Moseley			1910	Jenkinson	S. Howard	25	12,000
1855	Wanderer	Mr. Dennis	20		1911	Glenside	F. Bibby	26	12,500
1856	Freetrader	W. Barnett	21		1912	Jerry M.	Mr. C. G. Assheton		
1857	Emigrant	G. Hodgman	28	5,575			Smith	24	16,000
1858	Little Charley	C. Capel	16		1913	Covertcoat	Sir C. G. Assheton		
1859	Half Caste	Mr. Willoughby	20	4,200			Smith	22	15,850
1860	Anatis	C. Capel	19		1914	Sunloch	T. Tyler	20	17,575
1861	Jealousy	J. Bennett	24	4,925	1915	Ally Sloper	Lady Nelson	20	17,575
1862	Huntsman	Visc't de Namur	13		1916*	Bermouth	P. F. Heybourn	21	5,750
1863	Emblem	Lord Coventry	16	4,275	1917*	Ballymacad	Sir G. Bullough	19	6,025
1864	Emblematic	Lord Coventry	25		1918*	Poethlyn	Mrs. H. Peel	17	4,925
1865	Alciabade	B. J. Angell	23	5,175	1919*	Poethlyn	Mrs. H. Peel	22	17,950
1866	Salamander	Mr. Studd	30		1920	Troytown	Major Gerrard	24	21,800
1867	Cortolvin	Duke of Hamilton	23	8,300	1921	Shaun Spadah	T. McAlpine	35	39,925
1868	The Lamb	Lord Poulett	21	7,850	1922	Music Hall	Hugh Kershaw	32	35,000
1869	The Colonel	Mr. Weyman	22	8,800	1923	Sgt. Murphy†	Stephen Sanford	28	36,100
1870	The Colonel	M. Evans	23	7,325	1924	Master Rob't	Lord Airlie	30	40,825
1871	The Lamb	Lord Poulett	25	8,325	1925	Double Chance	Major D. Gould	33	40,600
1872	Casse Tete	E. Brayley	25	7,275	1926	Jack Horner	C. Schwartz	30	31,550
1873	Disturbance	Capt. Machell	28	9,800	1927	Spring	Mrs. M. Partridge	37	41,075
1874	Reugny	Capt. Machell	22	9,450	1928	Tipperary Tim	H. S. Kenyon	42	55,900
1875	Pathfinder	H. Bird	18	9,700	1929	Gregalach	Mrs. M. A. G'm'Il	66	64,625
1876	Regal	Capt. Machell	19	7,550	1930	Shaun Gollin	W. Midwood	41	48,650
1877	Austerlitz	F. G. Hobson	16	6,450	1931	Grakle	C. R. Taylor	36	37,240
1878	Shifnal	J. Nightingall	12	8,450	1932	Forbra	W. Parsonage	36	28,577
1879	The Liberator	G. Moore	18	9,500	1933	Kellsboro Jack†	Mrs. F. A. Clark	34	36,725
1880	Empress	P. Ducrot	14	6,250	1934	Golden Miller	Miss D. Paget	30	36,325
1881	Woodbrook	Capt. Kirkwood	13	4,900	1935	Reynoldstown	Maj. Noel F'rlong	27	32,725
1882	Seaman	Lord Manners	12	6,675	1936	Reynoldstown	Maj. Noel F'rlong	35	35,100
1883	Zedone	Prince C. Kinsky	10	4,625	1937	Royal Mail	H. Lloyd Thomas	33	33,225
1884	Voluptuary	H. F. Boyd	15	5,175	1938	Battleship†	Mrs. M. Scott	36	37,545
1885	Roquefort	A. Cooper	19	5,175	1939	Workman	Sir A. Maguire	37	31,966
1886	Old Joe	Mr. Douglas	23	6,805	1940	Bogskar	Lord Stalbridge	30	16,887
1887	Gamecock	E. Jay	16	6,080	1946	Lovely Cottage	Jack Morant	34	35,300
1888	Playfair	Col. E. W. Baird	20	5,905	1947	Caughoo	J. J. McDowell	57	39,728
1889	Frigate	M. A. Maher	20	6,170	1948	Sheila's Cottage	John Proctor	43	36,428
1890	Ilex	G. Masterman	16	8,325	1949	Russian Hero	W. F. Williamson	43	37,868
1891	Come Away	W. G. Jameson	21	8,400	1950	Freebooter	Mrs. L. Brotherton	49	28,000
1892	Father O'Flynn	C. G. Wilson	25	8,400	1951	Nickel Coin	Jeffrey Royle	36	23,744
1893	Cloister	C. G. Duff	15	9,825	1952	Teal	Harry Lane	47	25,753
1894	Why Not	Capt. C. H. Fenwick	14	9,875					
1895	W. M. f. Borneo	J. Widger	19	9,875					

* Substitute race. † American bred or owned.

"TRIPLE CROWN" WINNERS IN THE UNITED STATES

(Kentucky Derby, Preakness and Belmont Stakes)

Year	Horse	Owner	Year	Horse	Owner
1919	Sir Barton	J. K. L. Ross	1941	Whirlaway	Warren Wright
1930	Gallant Fox	William Woodward	1943	Count Fleet	Mrs. John Hertz
1935	Omaha	William Woodward	1946	Assault	Robert J. Kleberg
1937	War Admiral	Samuel D. Riddle	1948	Citation	Warren Wright

HOLLYWOOD GOLD CUP

Hollywood Park; 3-year-olds and over; 1½ miles.

Run at Santa Anita Park in 1949.

Year	Winner, age	Jockey	Wt.	Win val.	Year	Winner, age	Jockey	Wt.	Win val.
1938	Seabiscuit (5).....	G. Woolf.....	133	\$37,150	1947	Cover Up (4).....	R. Permane.....	117	73,500
1939	Kayak II (4).....	G. Woolf.....	125	35,075	1948	Shannon II (7).....	J. Adams.....	116	67,600
1940	Chalcedon (4).....	G. Woolf.....	133	36,200	1949	Solidarity (4).....	R. Neves.....	115	100,000
1941	Big Pebble (5).....	J. Westrope.....	119	62,475	1950	Noor (5).....	J. Longden.....	13 ^r	100,000
1944	Happy Issue (4).....	H. Woodhouse.....	119	60,600	1951	Citation (6).....	S. Brooks.....	120	100,000
1945	Challenge Me (4).....	A. Skoronski.....	108	48,230	1952	Two Lea (6).....	H. Moreno.....	113	100,000
1946	Triuplicate (5).....	B. James.....	113	79,900					

KENTUCKY DERBY

Churchill Downs; 3-year-olds; 1¼ miles

Distance 1¼ miles prior to 1896.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1875	Aristides.....	O. Lewis.....	100	\$2,850	1914	Old Rosebud.....	J. McCabe.....	114	9,125
1876	Vagrant.....	R. Swin.....	97	2,950	1915	Regret.....	J. Nottier.....	112	11,450
1877	Baden Baden.....	W. Walker.....	100	3,300	1916	George Smith.....	J. Loftus.....	117	9,750
1878	Day Star.....	J. Carter.....	100	4,050	1917	Omar Khayyam.....	C. Borel.....	117	16,600
1879	Lord Murphy.....	C. Schauer.....	100	3,550	1918	Exterminator.....	W. Knapp.....	114	14,700
1880	Fonso.....	G. Lewis.....	105	3,800	1919	Sir Barton.....	J. Loftus.....	112½	20,825
1881	Hindoo.....	J. McLaughlin.....	105	4,410	1920	Paul Jones.....	T. Rice.....	126	30,375
1882	Apollo.....	B. Hurd.....	102	4,560	1921	Behave Yourself.....	C. Thompson.....	126	38,450
1883	Leonatus.....	W. Donohue.....	105	3,760	1922	Morvich.....	A. Johnson.....	126	46,775
1884	Buchanan.....	I. Murphy.....	110	3,990	1923	Zev.....	E. Sande.....	126	53,600
1885	Joe Cotton.....	E. Henderson.....	110	4,630	1924	Black Gold.....	J. D. Mooney.....	126	52,775
1886	Ben Ali.....	P. Duffy.....	118	4,890	1925	Flying Ebony.....	E. Sande.....	126	52,950
1887	Montrose.....	I. Lewis.....	118	4,200	1926	Bubbling Over.....	A. Johnson.....	126	50,075
1888	Macbeth II.....	G. Covington.....	115	4,740	1927	Whiskery.....	L. McAttee.....	126	51,000
1889	Spokane.....	T. Kiley.....	118	4,970	1928	Reign Count.....	C. Lang.....	126	55,375
1890	Riley.....	I. Murphy.....	118	5,460	1929	Clyde Van Dusen.....	L. McAttee.....	126	53,950
1891	Kingman.....	I. Murphy.....	122	4,680	1930	Gallant Fox.....	E. Sande.....	126	50,725
1892	Azra.....	A. Clayton.....	122	4,230	1931	Twenty Grand.....	C. Kurtsinger.....	126	48,725
1893	Lookout.....	E. Kunze.....	122	4,090	1932	Burgoo King.....	E. James.....	126	52,350
1894	Chant.....	F. Goodale.....	122	4,020	1933	Brokers Tip.....	D. Meade.....	126	48,925
1895	Halma.....	J. Perkins.....	122	2,970	1934	Cavalcade.....	M. Garner.....	126	28,175
1896	Ben Brush.....	W. Simms.....	117	4,850	1935	Omaha.....	W. Saunders.....	126	39,525
1897	Typhoon II.....	F. Garner.....	117	4,850	1936	Bold Venture.....	I. Hanford.....	126	37,725
1898	Plaudit.....	W. Simms.....	117	4,850	1937	War Admiral.....	C. Kurtsinger.....	126	52,050
1899	Manuel.....	F. Taral.....	117	4,850	1938	Lawrin.....	E. Arcaro.....	126	47,050
1900	Lieut. Gibson.....	J. Boland.....	117	4,850	1939	Johnstown.....	J. Stout.....	126	46,350
1901	His Eminence.....	J. Winkfield.....	117	4,850	1940	Gallahadion.....	C. Bierman.....	126	60,150
1902	Alan-a-Dale.....	J. Winkfield.....	117	4,850	1941	Whirlaway.....	E. Arcaro.....	126	61,275
1903	Judge Himes.....	H. Booker.....	117	4,850	1942	Shut Out.....	W. D. Wright.....	126	64,225
1904	Elwood.....	F. Prior.....	117	4,850	1943	Count Fleet.....	J. Longden.....	126	60,725
1905	Agile.....	J. Martin.....	122	4,850	1944	Pensive.....	C. McCreary.....	126	64,675
1906	Sir Huon.....	R. Troxler.....	117	4,850	1945	Hoop Jr.....	E. Arcaro.....	126	64,850
1907	Pink Star.....	A. Minder.....	117	4,850	1946	Assault.....	W. Mehrlens.....	126	96,400
1908	Stone Street.....	A. Pickens.....	117	4,850	1947	Jet Pilot.....	E. Guerin.....	126	92,160
1909	Wintergreen.....	V. Powers.....	117	4,850	1948	Citation.....	E. Arcaro.....	126	83,400
1910	Donau.....	F. Herbert.....	117	4,850	1949	Ponder.....	S. Brooks.....	126	91,600
1911	Meridian.....	G. Archibald.....	117	4,850	1950	Middleground.....	W. Boland.....	126	92,650
1912	Worth.....	C. H. Shilling.....	117	4,850	1951	Count Turf.....	C. McCreary.....	126	98,050
1913	Donerail.....	R. Goose.....	117	5,475	1952	Hill Gail.....	E. Arcaro.....	126	96,300

MASSACHUSETTS HANDICAP

Suffolk Downs; 3-year-olds and over; 1¼ miles.

Distance 1¼ miles prior to 1948.

Year	Winner, age	Jockey	Wt.	Win val.	Year	Winner, age	Jockey	Wt.	Win val.
1935	Top Row (4).....	G. Woolf.....	116	\$18,750	1944	First Fiddle (5).....	J. Longden.....	124	41,850
1936	Time Supply (3).....	R. Workman.....	121	23,500	1945	First Fiddle (6).....	J. Longden.....	121	42,750
1937	Seabiscuit (4).....	J. Pollard.....	130	51,780	1946	Pavot (4).....	A. Kirkland.....	120	47,750
1938	Menow (3).....	N. Wall.....	107	40,550	1947	Stymie (6).....	C. McCreary.....	128	41,150
1939	Fighting Fox (4).....	J. Stout.....	113	49,250	1948	Beauchef (5).....	R. Donoso.....	115	47,250
1940	Eight Thirty (4).....	H. Richards.....	126	46,550	1949	First Nighter (4).....	J. Renick.....	104	39,200
1941	War Relic (3).....	T. Atkinson.....	102	48,350	1950	Cochise (4).....	E. Arcaro.....	120	21,400
1942	Whirlaway (4).....	G. Woolf.....	130	43,850	1951	One Hitter (5).....	T. Atkinson.....	113	22,000
1943	Market Wise (5).....	V. Nodarse.....	126	39,650	1952	To Market (4).....	W. Boland.....	109	32,600

PREAKNESS STAKES

Pimlico; 3-year-olds; 1½ miles

Distance 1½ miles prior to 1889; 1¼ miles in 1889; 1½ miles 1894 to 1930, inclusive, and 1908; 1 mile and 70 yards from 1901 to 1907, inclusive; 1 mile in 1909 and 1910; 1¼ miles from 1911 to 1924, inclusive. Run at Brooklyn Jockey Club's Gravesend Course from 1894 to 1908, inclusive. Run in two divisions in 1918.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1873	Survivor.....	G. Barbee.....	110	.....	1916	Damrosch.....	L. McAtee.....	115	1,380
1874	Culpepper.....	M. Donohue.....	110	.....	1917	Kalitan.....	E. Haynes.....	116	4,800
1875	Tom Ochiltree.....	L. Hughes.....	110	.....	1918	War Cloud.....	J. Loftus.....	117	12,250
1876	Shirley.....	G. Barbee.....	110	.....	1918	Jack Hare Jr.....	C. Peak.....	115	11,250
1877	Cloverbrook.....	C. Holloway.....	110	.....	1919	Sir Barton.....	J. Loftus.....	126	24,500
1878	Duke of Magenta.....	C. Holloway.....	110	.....	1920	Man o' War.....	C. Kummer.....	126	23,000
1879	Harold.....	W. Hughes.....	110	\$2,550	1921	Broomspun.....	F. Coltilette.....	114	43,000
1880	Grenada.....	W. Hughes.....	110	2,000	1922	Pillory.....	L. Morris.....	114	51,000
1881	Saunterer.....	W. Costello.....	110	1,950	1923	Vigil.....	B. Marinelli.....	114	52,000
1882	Vanguard.....	W. Costello.....	110	1,250	1924	Nellie Morse.....	J. Merimee.....	121	54,000
1883	Jacobus.....	G. Barbee.....	110	1,635	1925	Coventry.....	C. Kummer.....	126	52,700
1884	Knight of Ellerslie.....	S. H. Fisher.....	110	1,905	1926	Display.....	J. Maiben.....	126	53,625
1885	Tecumseh.....	J. McLaughlin.....	118	2,160	1927	Bosnianian.....	A. Abel.....	126	53,100
1886	The Bard.....	S. H. Fisher.....	118	2,050	1928	Victorian.....	R. Workman.....	126	60,000
1887	Dunboyne.....	W. Donohue.....	118	1,675	1929	Dr. Freeland.....	L. Schaefer.....	126	52,325
1888	Refund.....	F. Littlefield.....	118	1,185	1930	Gallant Fox.....	E. Sande.....	126	51,925
1889	Buddhist.....	H. Anderson.....	118	1,130	1931	Mate.....	G. Ellis.....	126	48,225
1894	Assignee.....	F. Taral.....	122	1,830	1932	Burgoo King.....	E. James.....	126	50,375
1895	Belmar.....	F. Taral.....	115	1,350	1933	Head Play.....	C. Kurtisinger.....	126	26,850
1896	Margrave.....	H. Griffin.....	115	1,350	1934	High Quest.....	R. Jones.....	126	25,175
1897	Paul Kauvar.....	Thorpe.....	108	1,420	1935	Omaha.....	W. Saunders.....	126	25,325
1898	Sly Fox.....	W. Simms.....	120	1,450	1936	Bold Venture.....	G. Woolf.....	126	27,325
1899	Half Time.....	R. Clawson.....	104	1,580	1937	War Admiral.....	C. Kurtisinger.....	126	45,600
1900	Hindus.....	H. Spencer.....	106	1,900	1938	Dauber.....	M. Peters.....	126	51,857
1901	The Parader.....	Landry.....	118	1,605	1939	Challedon.....	G. Seabo.....	126	53,710
1902	Old England.....	L. Jackson.....	115	2,240	1940	Bimelech.....	F. A. Smith.....	126	53,230
1903	Flocarlino.....	W. Gannon.....	113	1,875	1941	Whirlaway.....	E. Arcaro.....	126	49,365
1904	Bryn Mawr.....	E. Hildebrand.....	108	2,355	1942	Alsab.....	B. James.....	126	58,175
1905	Cairngorm.....	W. Davis.....	114	2,145	1943	Count Fleet.....	J. Longden.....	126	43,190
1906	Whimsical.....	W. Miller.....	108	2,355	1944	Pensive.....	C. McCreary.....	126	60,075
1907	Don Enrique.....	G. Mountain.....	107	2,260	1945	Polyneslan.....	W. D. Wright.....	126	66,170
1908	Royal Tourist.....	E. Dugan.....	112	2,455	1946	Assault.....	W. Mehrkens.....	126	96,620
1909	Effendi.....	W. Doyle.....	116	3,225	1947	Faultless.....	D. Dodson.....	126	98,005
1910	Layminster.....	R. Estep.....	84	3,300	1948	Citation.....	E. Arcaro.....	126	91,870
1911	Watervale.....	E. Dugan.....	112	2,700	1949	Capot.....	T. Atkinson.....	126	79,985
1912	Colonel Holloway.....	C. Turner.....	107	1,450	1950	Hill Prince.....	E. Arcaro.....	126	56,115
1913	Buskin.....	J. Butwell.....	117	1,670	1951	Bold.....	E. Arcaro.....	126	83,110
1914	Holiday.....	A. Schuttinger.....	108	1,355	1952	Blue Man.....	C. McCreary.....	126	86,135
1915	Rhine Maiden.....	D. Hoffman.....	104	1,275					

SANTA ANITA DERBY

Santa Anita Park; 3-year-olds; 1¼ miles
Distance 1½ miles prior to 1938; 1¼ miles in 1947.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1935	Gille.....	S. Coucci.....	126	\$19,650	1946	Knockdown.....	R. Permano.....	122	74,680
1936	He Did.....	W. D. Wright.....	126	26,000	1947	On Trust.....	J. Longden.....	118	81,750
1937	Fairy Hill.....	M. Peters.....	121	45,425	1948	Salmagundi.....	J. Longden.....	118	79,800
1938	Stagehand.....	J. Westrope.....	118	42,350	1949	Old Rockport.....	G. Glisson.....	118	94,700
1939	Clecia.....	C. Bierman.....	115	41,850	1950	Your Host.....	J. Longden.....	118	89,800
1940	Sweepida.....	R. Neves.....	120	43,850	1951	Rough'n Tumble.....	E. Arcaro.....	118	81,500
1941	Porter's Cap.....	L. Haas.....	120	44,975	1952	Hill Gail.....	T. Atkinson.....	118	92,900
1945	Bymeabond.....	G. Woolf.....	119	37,250					

SANTA ANITA HANDICAP

Santa Anita Park; 3-year-olds and over; 1¼ miles.

Year	Winner, age	Jockey	Wt.	Win val.	Year	Winner, age	Jockey	Wt.	Win val.
1935	Azucar (7).....	G. Woolf.....	117	\$108,400	1946	War Knight (6).....	J. Adams.....	115	101,205
1936	Top Row (5).....	W. D. Wright.....	116	104,600	1947	Olhaverly (8).....	M. Peterson.....	116	98,900
1937	Rosemont (5).....	H. Richards.....	124	90,700	1948	Talon (6).....	E. Arcaro.....	122	102,500
1938	Stagehand (3).....	N. Wall.....	100	91,450	1949	Vulcan's Forge (4).....	D. Gorman.....	119	102,000
1939	Kayak II (4).....	J. Adams.....	110	91,100	1950	Noor (5).....	J. Longden.....	110	97,900
1940	Seabiscuit (7).....	J. Pollard.....	130	86,650	1951	Moonrush (5).....	J. Longden.....	114	97,900
1941	Bay View (4).....	N. Wall.....	108	89,360	1952	Miche (7).....	J. Covalli.....	115	104,100
1945	Thumbs Up (6).....	J. Longden.....	130	82,922					

SUBURBAN HANDICAP

Belmont Park; 3-year-olds and over; 1 1/4 miles.

Run at Sheepshead Bay prior to 1913.

Year	Winner, age	Jockey	Wt.	Win val.	Year	Winner, age	Jockey	Wt.	Win val.
1884	Gen. Monroe (6).....	W. Donohue.....	124	\$ 4,945	1920	Paul Jones (3).....	A. Schuttinger.....	106	6,350
1885	Pontiac (4).....	H. Olney.....	102	5,855	1921	Audacious (5).....	C. Kummer.....	120	8,100
1886	Troubadour (4).....	W. Fitzpatrick.....	115	5,697	1922	Captain Alcock (5)....	C. Ponce.....	108	8,200
1887	Eurus (4).....	G. Davis.....	102	6,065	1923	Gray Lag (5).....	E. Sande.....	135	7,800
1888	Elkwood (5).....	W. Martin.....	119	6,812	1924	Mad Hatter (8).....	E. Sande.....	125	9,150
1889	Raceland (4).....	E. Garrison.....	120	6,900	1925	Sting (4).....	B. Bruening.....	122	11,600
1890	Salvator (4).....	I. Murphy.....	127	6,900	1926	Crusader (3).....	J. Callahan.....	104	13,150
1891	Loantaka (5).....	M. Bergen.....	110	9,900	1927	Crusader (4).....	C. Kummer.....	127	11,875
1892	Montana (4).....	E. Garrison.....	115	17,750	1928	Dolan (4).....	J. Callahan.....	105	13,875
1893	Lowlander (5).....	P. McDermott.....	105	17,750	1929	Bateau (4).....	E. Ambrose.....	112	14,100
1894	Ramapo (4).....	F. Taral.....	120	12,070	1930	Petee Wrack (5).....	E. Sande.....	122	11,850
1895	Lazzarone (4).....	A. Hamilton.....	115	4,730	1931	Mokamat (4).....	A. Robertson.....	123	11,200
1895	Henry of Navarre (5)....	H. Griffin.....	129	5,850	1932	White Clover II (5)...	R. Workman.....	115	11,100
1897	Ben Brush (4).....	W. Simms.....	123	5,850	1933	Equipoise (5).....	R. Workman.....	132	7,250
1898	Tillo (4).....	A. Clayton.....	119	6,800	1934	Ladysman (4).....	S. Coucci.....	114	5,750
1899	Imp (5).....	N. Turner.....	114	6,800	1935	Head Play (5).....	C. Kurtzinger.....	114	12,175
1900	Kinley Mack (4).....	P. McCue.....	125	6,800	1936	Firethorn (4).....	H. Richards.....	116	12,125
1901	Alcedo (4).....	H. Spencer.....	112	7,800	1937	Anerk (4).....	C. Rosengarten.....	110	10,950
1902	Gold Heels (4).....	O. Wonderly.....	124	7,800	1938	Snark (5).....	J. Longden.....	120	17,050
1903	Africander (3).....	G. Fuller.....	110	16,490	1939	Cravat (4).....	J. Westrope.....	121	17,750
1904	Hermis (5).....	A. Redfern.....	127	16,800	1940	Eight Thirty (4).....	H. Richards.....	127	19,850
1905	Beldame (4).....	F. O'Neill.....	123	16,800	1941	Your Chance (4).....	D. Meade.....	114	25,200
1906	Go Between (5).....	W. Shaw.....	116	16,800	1942	Market Wise (4).....	B. James.....	124	27,800
1907	Nealon (4).....	W. Dugan.....	113	16,800	1943	Don Bingo (4).....	J. Renick.....	104	27,600
1908	Ballot (4).....	J. Notter.....	127	19,750	1944	Aleten (5).....	H. Lindberg.....	108	39,210
1909	Fitz Herbert (3).....	E. Dugan.....	105	3,850	1945	Devil Diver (5).....	E. Arcaro.....	132	34,995
1910	Olambala (4).....	G. Archibald.....	115	4,800	1946	Armed (5).....	D. Dodson.....	130	43,000
1913	Whisk Broom II (6)....	J. Notter.....	139	3,000	1947	Assault (4).....	E. Arcaro.....	130	40,000
1915	Stromboli (4).....	C. Turner.....	122	3,925	1948	Harmonic (4).....	W. Mehrtens.....	109	39,700
1916	Friar Rock (3).....	M. Garner.....	101	3,450	1949	Vulcan's Forge (4)....	E. Arcaro.....	124	43,200
1917	Boots (6).....	J. Loftus.....	122	4,900	1950	Loser Weeper (5).....	N. Combest.....	115	41,400
1918	Johnen (3).....	F. Robinson.....	110	5,850	1951	Busanda (4).....	K. Stuart.....	102	42,100
1919	Corn Tassel (5).....	L. Ensor.....	108	5,200	1952	One Hitter (6).....	T. Atkinson.....	112	41,900

TRAVERS STAKES

Saratoga; 3-year-olds; 1 1/4 miles.

Distance 1 1/4 miles prior to 1890; 1 1/2 miles in 1890, 1891, and 1892; 1 1/4 miles in 1893, 1894 and 1897; 1 1/2 miles in 1895, 1901, 1902, and 1903. Run as Travers Midsummer Derby from 1927 to 1932, inclusive. Run at Belmont Park from 1943 to 1945, inclusive.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1854	Kentucky.....	Gilpatrick.....	109	\$2,950	1892	Azra.....	Clayton.....	122	2,750
1865	Maiden.....	Sewell.....	97	3,400	1893	Stowaway.....	McDermott.....	107	2,450
1866	Merrill.....	Abe.....	100	3,500	1894	Henry of Navarre.....	Taral.....	125	2,350
1867	Ruthless.....	Gilpatrick.....	103	2,850	1895	Liza.....	Griffin.....	104	1,125
1868	The Banshee.....	Smith.....	97	3,150	1897	Rensselaer.....	Taral.....	126	1,425
1869	Glenelg.....	C. Miller.....	110	3,000	1901	Blues.....	Shaw.....	126	6,750
1870	Kingfisher.....	C. Miller.....	110	4,950	1902	Hermis.....	Rice.....	111	6,750
1871	Harry Bassett.....	W. Miller.....	110	5,600	1903	Ada Nay.....	F. O'Neill.....	106	8,150
1872	Joe Daniels.....	J. Rowe.....	110	5,500	1904	Broomstick.....	T. Burns.....	129	5,850
1873	Tom Bowling.....	R. Swim.....	110	5,400	1905	Dandelion.....	Shaw.....	111	8,350
1874	Attila.....	Barbee.....	110	5,050	1906	Gallivant.....	W. Miller.....	111	5,800
1875	D'Artagnan.....	Barbee.....	110	4,850	1907	Frank Gill.....	Notter.....	129	5,800
1876	Sultana.....	Hayward.....	107	3,700	1908	Dorante.....	J. Lee.....	116	5,800
1877	Baden Baden.....	Sayers.....	110	4,550	1909	Hilarious.....	Scoville.....	129	5,800
1878	Duke of Magenta.....	Hughes.....	118	4,250	1910	Dalmatian.....	C. H. Shilling.....	129	4,825
1879	Falsetto.....	I. Murphy.....	118	4,950	1913	Rock View.....	T. McTaggart.....	129	2,725
1880	Grenada.....	Hughes.....	118	3,750	1914	Roamer.....	J. Butwell.....	123	3,000
1881	Hindoo.....	J. McLaughlin.....	118	2,950	1915	Lady Rothera.....	M. Garner.....	106	2,150
1882	Carley B.....	Quantrell.....	115	3,450	1916	Spur.....	J. Loftus.....	129	3,125
1883	Barnes.....	J. McLaughlin.....	118	3,400	1917	Omar Khayyam.....	J. Butwell.....	129	5,350
1884	Rataplan.....	Fitzpatrick.....	118	4,150	1918	Sun Briar.....	W. Knapp.....	120	7,700
1885	Bersan.....	Spellman.....	118	4,025	1919	Hannibal.....	L. Ensor.....	120	9,835
1886	Inspector B.....	J. McLaughlin.....	118	3,825	1920	Man o' War.....	A. Schuttinger.....	129	9,275
1887	Carey.....	Blaylock.....	118	3,825	1921	Sporting Blood.....	L. Lyke.....	115	10,275
1888	Sir Dixon.....	J. McLaughlin.....	118	4,625	1922	Little Chief.....	L. Factor.....	123	11,325
1889	Long Dance.....	Barnes.....	118	3,700	1923	Wilderness.....	B. Marinelli.....	120	13,550
1890	Sir John.....	Bergen.....	118	4,925	1924	Sun Flag.....	F. Keogh.....	115	14,675
1891	Vallera.....	R. Williams.....	122	2,900	1925	Dangerous.....	C. Kummer.....	115	13,425

Travers Stakes (Cont.)

1926	Mars.....	F. Cottiletti.....	123	15,050	1940	Fenelon.....	J. Stout.....	122	17,425
1927	Brown Bud.....	L. Fator.....	120	29,925	1941	Whirlaway.....	A. Robertson.....	130	16,900
1928	Peteo-Wrack.....	S. O'Donnell.....	117	30,550	1942	Shut Out.....	E. Arcaro.....	130	17,825
1929	Beacon Hill.....	A. Robertson.....	117	31,820	1943	Eurasian.....	S. Brooks.....	112	19,850
1930	Jim Dandy.....	F. J. Baker.....	120	27,050	1944	By Jimminy.....	E. Arcaro.....	126	25,015
1931	Twenty Grand.....	L. McAtee.....	126	33,000	1945	Adonis.....	C. McCreary.....	110	28,630
1932	War Hero.....	J. Gilbert.....	115	23,150	1946	Natchez.....	T. Atkinson.....	124	24,750
1933	Inlander.....	R. Jones.....	126	21,050	1947	Young Peter.....	T. May.....	124	19,375
1934	Observant.....	L. Humphries.....	112	14,650	1948	Ace Admiral.....	T. Atkinson.....	108	19,650
1935	Gold Foam.....	S. Coucci.....	112	14,675	1949	Arise.....	C. Errico.....	108	16,000
1936	Granville.....	J. Stout.....	127	14,700	1950	Lights Up.....	G. Hettinger.....	110	16,350
1937	Burning Star.....	W. D. Wright.....	117	14,550	1951	Battlefield.....	E. Arcaro.....	123	15,000
1938	Thanksgiving.....	E. Arcaro.....	117	14,400	1952	One Count.....	E. Guerin.....	126	16,450
1939	Eight Thirty.....	H. Richards.....	117	16,575					

WASHINGTON PARK FUTURITY

Washington Park; 2-year-olds; 3/4 mile.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1937	Tiger.....	A. Robertson.....	117	\$26,135	1946	Education.....	J. Adams.....	118	65,125
1940	Porter's Cap.....	C. Bierman.....	117	30,780	1947	Bewitch.....	D. Dodson.....	119	63,150
1941	Alsab.....	R. L. Vedder.....	119	32,575	1948	Model Cadet.....	A. Skorski.....	118	60,750
1942	Occupation.....	L. Balaski.....	122	58,475	1949	Curcie.....	O. Scurlack.....	115	57,850
1943	Occupy.....	L. Whiting.....	113	43,625	1950	To Market.....	A. Rivera.....	122	57,390
1944	Free for All.....	O. Grohs.....	122	47,850	1951	Oh Leo.....	P. Bailey.....	122	62,700
1945	Revoked.....	A. Bodiou.....	118	56,700	1952	Mr. Paradise.....	E. Arcaro.....	116	79,710

WIDENER

Hialeah Park; 3-year-olds and over; 1 1/4 miles

Run as Widener Challenge Cup Handicap prior to 1938.

Year	Winner, age	Jockey	Wt.	Win val.
1936	Mantagna (4).....	E. Litzenberger.....	109	\$10,150
1937	Columbiana (4).....	H. Le Blanc.....	103	52,000
1938	War Admiral (4).....	C. Kurtzinger.....	130	49,550
1939	Bull Lea (4).....	I. Anderson.....	119	46,450
1940	Many Stings (5).....	R. Donoso.....	109	52,000
1941	Big Pebble (5).....	G. Seabo.....	109	51,800
1942	The Rhymer (4).....	E. Arcaro.....	111	53,950
1944	Four Freedoms (4).....	E. Arcaro.....	109 1/2	29,350

Run as Widener Handicap from 1938 to 1944, inclusive.

Year	Winner, age	Jockey	Wt.	Win val.
1946	Armed (5).....	D. Dodson.....	128	45,700
1947	Armed (6).....	D. Dodson.....	129	43,900
1948	El Mono (4).....	P. Roberts.....	112	43,800
1949	Coaltown (4).....	T. Atkinson.....	123	42,300
1950	Royal Governor (6).....	C. Rogers.....	118	43,000
1951	Sunglow (4).....	D. Dodson.....	116	54,100
1952	Spartan Valor (4).....	J. Stout.....	119	51,300

WOOD MEMORIAL

Jamaica; 3-year-olds; 1 1/4 miles

Run as Wood Stakes prior to 1927.

Distance 1 mile and 70 yards from 1925 to 1939, inclusive.

Run in two divisions in 1944, 1945, and 1947.

Year	Winner	Jockey	Wt.	Win val.
1925	Backbone.....	I. Parke.....	110	\$ 7,600
1926	Pompey.....	B. Breuning.....	120	8,700
1927	Saxon.....	G. Ellis.....	117	9,050
1928	Distraction.....	D. McAvillfe.....	120	11,300
1929	Essare.....	M. Garner.....	110	11,000
1930	Gallant Fox.....	E. Sande.....	120	10,150
1931	Twenty Grand.....	C. Kurtzinger.....	120	10,200
1932	Universe.....	L. McAtee.....	120	10,400
1933	Mr. Khayyam.....	P. Wallis.....	122	3,760
1934	High Quest.....	D. Bellizzi.....	120	3,990
1935	Today.....	R. Workman.....	112	11,350
1936	Teufel.....	E. Litzenberger.....	112	10,775
1937	Melodist.....	J. Longden.....	120	19,105
1938	Fighting Fox.....	J. Stout.....	120	17,450
1939	Johnstown.....	J. Stout.....	120	17,675
1940	Dit.....	L. Haas.....	120	19,225

Year	Winner	Jockey	Wt.	Win val.
1941	Market Wise.....	D. Meade.....	120	16,650
1942	Requested.....	W. D. Wright.....	120	22,900
1943	Count Fleet.....	J. Longden.....	126	20,150
1944	Stir Up.....	E. Arcaro.....	126	19,625
1944	Lucky Draw.....	J. Longden.....	126	20,115
1945	Jeep.....	A. Kirkland.....	126	18,945
1945	Hoop Jr.....	E. Arcaro.....	126	18,945
1946	Assault.....	W. Mehrtens.....	126	22,600
1947	Phalanx.....	E. Arcaro.....	126	31,325
1947	I Will.....	E. Arcaro.....	126	31,625
1948	My Request.....	D. Dodson.....	126	34,600
1949	Olympia.....	E. Arcaro.....	126	31,850
1950	Hill Prince.....	E. Arcaro.....	126	34,500
1951	Repetoire.....	P. McLean.....	126	35,250
1952	Master Fiddle.....	D. Gorman.....	126	45,200

Milestones for Jockeys

Gordon Richards of England, Johnny Longden and Eddie Arcaro of the United States, three of the leading jockeys in the world, each gained a major goal in 1952: On July 16, Richards brought home two

winners to bring his lifetime total to 4,500, a world record. Longden rode his 4,000th winner, an American mark, at Hollywood Park, Inglewood, Calif., on May 15 and Arcaro notched No. 3,000 at Arlington Park, Arlington Heights, Ill., on June 24.

Facts on Citation

Record by Years

Year	Age	Sts.	1st	2d	3d	Unp.	Earnings
1947.....	2	9	3	1	0	0	\$155,680
1948.....	3	20	19	1	0	0	709,470
1949.....	4	0	2	0	0	0	73,480
1950.....	5	9	2	7	0	0	147,130
1951.....	6	7	3	1	2	1	
Totals.....	45	32	10	2	1		\$1,085,760

Stake Victories

1947

Date	Event	Dist.	Wt.	Time	Earnings
July 30	Elementary Stakes.....	¾	122	1:10½	\$17,300
Oct. 4	Belmont Futurity.....	6½	122	1:15½	78,430
Nov. 8	Pimlico Futurity.....	1½	119	1:48½	36,675

1948

Feb. 11	Seminole Handicap.....	¾	112	1:23	8,525
Feb. 18	Everglades Handicap.....	1¼	126	1:49	7,200
Feb. 28	Flamingo Stakes.....	1¼	126	1:48½	43,500
Apr. 17	Chesapeake Stakes.....	1¼	122	1:45½	19,750
Apr. 27	Derby Trial.....	1	118	1:37½	8,525
May 1	Kentucky Derby.....	1¼	126	2:05½	83,400
May 15	Preakness Stakes.....	1¼	126	2:02½	91,870
May 29	Jersey Stakes.....	1¼	126	2:03	43,300
June 12	Belmont Stakes.....	1¼	126	2:28½	77,700
July 5	Stars and Stripes.....	1¼	119	1:49½	38,000
Aug. 28	American Derby.....	1¼	126	2:01½	66,450
Sept. 29	Sysonby Mile.....	1	119	1:36	20,200
Oct. 2	Jockey Club Gold Cup..	2	117	3:21½	72,700
Oct. 16	Empire City Gold Cup..	1¼	119	2:42½	75,600
Oct. 29	*Pimlico Special.....	1¼	120	1:59½	10,000
Dec. 11	Tanforan Handicap.....	1¼	123	2:02½	31,800

* Walkover.

1950

June 3	Golden Gate Mile.....	1	128	1:33½	14,550
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1951

July 4	American Handicap.....	1¼	123	1:48½	33,000
July 14	Hollywood Gold Cup.....	1¼	120	2:01	100,000

(Citation was retired on July 19, 1951)

U. S. RACE TRACK DISTANCES

(From nearest large cities)

New York—Aqueduct, 12 miles; Jamaica, 15; Belmont Park, 20; Monmouth Park, 35.
 Baltimore—Pimlico, 5 (from Washington, 40); Laurel Park, 20 (from Washington, 20); Bowie, 21 (from Washington, 19); Havre de Grace, 38 (from Washington, 78).
 Philadelphia—Garden State Park, 7 (from Camden, 4); Delaware Park, 29 (from Wilmington, 9); Atlantic City, 46 (from Atlantic City, 14).
 Chicago—Hawthorne, 8; Arlington Park, 23; Washington Park, 23; Lincoln Fields, 30.
 Los Angeles—Santa Anita Park, 10; Hollywood Park, 11; Del Mar, 104.
 Miami (Fla.)—Hialeah Park, 19; Tropical Park, 13; Gulfstream Park, 14.
 Boston—Suffolk Downs, 3; Rockingham Park, 38; Narragansett Park, 37 (from Providence, 6); Lincoln Downs, 34 (from Providence, 6).
 San Francisco—Tanforan, 14; Bay Meadows, 20; Golden Gate Fields, 11.
 Albany (N. Y.)—Saratoga, 33.

Arcaro Sets Purse-winning Record

Horses ridden by Eddie Arcaro earned more than \$2,000,000 in 1952 to make the veteran jockey the first to reach that mark.

ENGLISH STAKES WINNERS, 1952

Ascot Gold Cup—The Maharanee Seeta Dewi Gaskwar of Baroda's Aquino
 Cambridgeshire—Greville Baylis' Richer
 Cesarewitch—George MacLean's Flush Royal
 Epsom Derby—The Aga Khan's Tulyar
 Epsom Oaks—Capt. A. M. Keith's Frieza
 Eclipse—The Aga Khan's Tulyar
 Grand National Steeplechase—Harry Lane's Teal
 Gimcrack—Jack S. Gerber's Bebe Grand
 King George VI and Queen Elizabeth—The Aga Khan's Tulyar
 Lincolnshire—C. Oliffe-Lee's Phariza
 1,000 Guineas—Sir Malcolm McAlpine's Zabara
 St. Leger—The Aga Khan's Tulyar
 2,000 Guineas—Eugene Constant's Thunderhead II

French Stakes Winners, 1952

Prix de l'Arc de Triomphe—The Aga Khan's Nuccio
 Grand Prix de Paris—E. Martinez de Hoz's Orfeo
 Prix du Jockey Club (French Derby)—Marcel Boussac's Auribian
 Prix de Diane (French Oaks)—R. B. Strassburger's Seria

1952 THOROUGHBRED LEADERS

(Through Oct. 25)

Money-winning owners—1, Calumet Farm (\$1,259,447); 2, Alfred G. Vanderbilt (\$577,730); 3, King Ranch (\$507,970).

*Jockeys (winners ridden)—1, Anthony DeSpirito (304); 2, Willie Shoemaker (264); 3, Harold Keene (250).

Trainers (winners saddled)—1, Willie Mottler (135); 2, R. H. McDaniel (128); 3, M. H. VanBerg (101).

Money-winning horses—1, Crafty Admiral (\$277,225); 2, Mark-Ye-Well (\$268,745); 3, Blue Man (\$259,585).

* Through Oct. 27.

HUNTS MEETING WINNERS, 1952

Carolina Cup (Camden, S. C.)—Mrs. Simon T. Patterson's Gift of Gold
 Connecticut Cup (Purchase, N. Y.)—Gift of Gold
 Deep Run Hunt Cup (Richmond, Va.)—Happy Hill Farm's Adaptable
 Foxcatcher National Cup (Fair Hill, Md.)—Mrs. E. duPont Weir's Cherwell
 Foxcatcher Plate (Media, Pa.)—C. Mahlon Kline's Astronomer
 Grand National Point-to-Point (Butler, Md.)—Mrs. William J. Clothier's Pine Pep
 International Gold Cup (Ligonier, Pa.)—Mill River Stable's Monkey Wrench
 Maryland Hunt Cup (Glyndon)—Pine Pep
 Mary Mellon Steeplechase (Middleburg, Va.)—J. M. Mulford's Proceed
 Monmouth County Gold Cup (Red Bank, N. J.)—Mrs. T. A. Randolph's Uncle Joe
 My Lady's Manor Point-to-Point (Monkton, Md.)—Stuart S. Janney, Jr.'s Philstar
 New Jersey Hunt Cup (Far Hills)—George T. Weymouth's Done Sleeping
 Pennsylvania Hunt Cup (Whitemarsh)—A. C. Stokes' Tolbiac
 Virginia Gold Cup (Warrenton)—Gift of Gold

LEADING ALL-TIME MONEY-WINNING THOROUGHBREDS

(Through Oct. 25, 1952)

Horse	Owner	Amount	Starts	1st	2d	3d	Win pct.
Citation	Calumet Farm	\$1,085,760	45	32	10	2	.711
*Stymie	Mrs. Ethel D. Jacobs	918,485	131	35	33	28	.267
*Armed	Calumet Farm	817,475	81	41	20	10	.506
*Assault	Robert J. Kleberg	675,470	42	18	6	7	.429
*Whirlaway	Calumet Farm	561,161	60	32	15	9	.533
On Trust	E. O. Stice & Sons	554,145	88	23	19	13	.261
Ponder	Calumet Farm	541,275	41	14	7	4	.341
Bewitch	Calumet Farm	462,605	55	20	10	11	.364
Gallorette	Mrs. Marie Moore	445,535	72	21	20	13	.292
*Seabiscuit	Charles S. Howard	437,730	89	33	15	13	.371

*Horses which have headed list.

LEADING JOCKEYS SINCE 1930

Year	Jockey	Mounts	Winners	Unplaced	Pct.
1930	H. R. Riley	861	177	416	.21
1931	H. Roble	1,174	173	673	.15
1932	J. Gilbert	1,050	212	534	.20
1933	J. Westrope	1,224	301	522	.25
1934	M. Peters	1,045	221	498	.21
1935	C. Stevenson	1,099	206	578	.19
1936	B. James	1,106	245	505	.22
1937	J. Adams	1,265	260	642	.21
1938	J. Longden	1,150	236	575	.21
1939	D. Meade	1,284	255	628	.20
1940	E. Dew	1,377	287	709	.21
1941	D. Meade	1,164	210	611	.18
1942	J. Adams	1,120	245	540	.22
1943	J. Adams	1,069	228	511	.21
1944	T. Atkinson	1,539	287	808	.19
1945	J. D. Jessop	1,085	290	445	.27
1946	T. Atkinson	1,377	233	758	.17
1947	J. Longden	1,327	316	566	.24
1948	J. Longden	1,197	319	494	.27
1949	G. Glisson	1,347	270	679	.20
1950	W. Shoemaker	1,640	388	756	.24
	J. Culmone	1,676	388	787	.23
1951	C. Burr	1,162	310	585	.24

LEADING TRAINERS SINCE 1930

(Winners saddled)

Year	Name	Winners	Earnings
1930	C. B. Irwin	92	\$ 70,411
1931	J. D. Mikel	72	49,770
1932	G. Alexandra	76	55,890
1933	H. Jacobs	116	76,965
1934	H. Jacobs	127	113,055
1935	H. Jacobs	114	95,155
1936	H. Jacobs	177	155,789
1937	H. Jacobs	134	142,474
1938	H. Jacobs	109	116,609
1939	H. Jacobs	106	100,907
1940	D. Womeldorf	108	112,137
1941	H. Jacobs	123	165,964
1942	H. Jacobs	133	186,371
1943	H. Jacobs	128	210,775
1944	H. Jacobs	117	306,821
1945	S. Lipiec	127	238,361
1946	W. Molter	122	329,725
1947	W. Molter	155	833,970
1948	W. Molter	184	1,015,547
1949	W. Molter	129	696,184
	W. H. Bishop	129	236,131
1950	R. H. McDaniel	156	441,590
1951	R. H. McDaniel	164	539,204

LEADING MONEY-WINNING OWNERS

(Since 1930)

Year	Name	Amount
1930	C. V. Whitney	\$ 385,972
1931	C. V. Whitney	422,923
1932	C. V. Whitney	403,681
1933	C. V. Whitney	241,292
1934	Brookmeade Stable	251,138
1935	A. G. Vanderbilt	303,605
1936	Milky Way Farm Stable	206,450
1937	Mrs. Charles S. Howard	214,559
1938	H. Maxwell Howard	226,495
1939	Belair Stud	284,250
1940	Charles S. Howard	334,120
1941	Calumet Farm	475,091
1942	Greentree Stable	414,432
1943	Calumet Farm	267,915
1944	Calumet Farm	601,660
1945	Maine Chance Farm	589,170
1946	Calumet Farm	564,095
1947	Calumet Farm	1,402,436
1948	Calumet Farm	1,269,710
1949	Calumet Farm	1,128,942
1950	Brookmeade Stable	651,399
1951	Greentree Stable	637,242

TOP MONEY-WINNING HORSES

Year	Horse and age	Starts	1st	Amount
1930	Gallant Fox (3)	10	9	\$308,275
1931	Top Flight (2)	7	7	219,000
1932	Gusto (3)	16	4	145,940
1933	Singing Wood (2)	9	3	88,050
1934	Cavalcade (3)	7	6	111,235
1935	Omaha (3)	9	6	142,255
1936	Granville (3)	11	7	110,295
1937	Seabiscuit (4)	15	11	168,580
1938	Stagehand (3)	15	8	189,710
1939	Challidon (3)	15	9	184,535
1940	Blmelech (3)	7	4	110,005
1941	Whirlaway (3)	20	13	272,386
1942	Shut Out (3)	12	8	238,872
1943	Count Fleet (3)	6	6	174,055
1944	Pavot (2)	8	8	179,040
1945	Busher (3)	13	10	273,735
1946	Assault (3)	15	8	424,195
1947	Armed (6)	17	11	376,325
1948	Citation (3)	20	19	709,470
1949	Ponder (3)	21	9	321,825
1950	Noor (5)	13	7	346,940
1951	Counterpoint (3)	15	7	250,525

WORLD RECORDS

Distance	Horse, age, weight, track and location	Date	Time
¼	Big Racket, 4, 111, Hipodromo de las Americas, Mexico City, Mexico.	February 5, 1945	:20½
2½ f.	Tie Score, 5, 115, Hipodromo de las Americas, Mexico City, Mexico.	February 5, 1946	:26½
¾	Atoka, 6, 105, Butte, Mont.	September 7, 1906	:33½
3½ f.	Joe Blair, 5, 115, Juarez, Mexico.	February 5, 1916	:39
½	Tie Score 4, 111, Hipodromo de las Americas, Mexico City, Mexico.	April 1, 1945	:45½
4½ f.	Saggy, 2, 117, Havre de Grace, Md.	April 23, 1947	:51½
¾	Encantadora, 3, 115, Centennial Park, Littleton, Colo.	August 9, 1951	:57
5½ f.	Nance's Ace, 3, 112, Tropical Park, Coral Gables, Fla.	December 27, 1944	1:03½
5½ f.	Fighting Fox, 4, 126, Empire City, Yonkers, N. Y.	July 8, 1939	1:07½
	Doubrab, 4, 130, Empire City, Yonkers, N. Y.	July 18, 1942	1:07½
¾	*Gelding by Broken Tendril, 3, 123, Brighton, England.	August 6, 1929	1:06½
	Bolero, 4, 122, Golden Gate Fields, Albany, Calif.	May 27, 1950	1:08½
6½ f.	Snark, 4, 109, Hialeah Park, Hialeah, Fla.	February 9, 1937	1:15½
¾	Bolero, 5, 121, Santa Anita Park, Arcadia, Calif.	January 1, 1951	1:21
1	Citation, 5, 128, Golden Gate Fields, Albany, Calif.	June 3, 1950	1:33½
1 mi. 70 yd.	South Dakota, 3, 122, River Downs, Cincinnati, Ohio	August 4, 1945	1:40
1½	Count Speed, 4, 122, Golden Gate Fields, Albany, Calif.	October 4, 1947	1:41
1½	Noor, 5, 123, Golden Gate Fields, Albany, Calif.	June 17, 1950	1:46½
1½	Challedon, 3, 120, Keeneland, Lexington, Ky.	October 10, 1939	1:54½
	Lucky Draw, 5, 123, Narragansett Park, Pawtucket, R. I.	September 14, 1946	1:54½
1½	Noor, 5, 127, Golden Gate Fields, Albany, Calif.	June 24, 1950	1:58½
1½	Man o' War, 3, 126, Belmont Park, Elmont, N. Y.	June 12, 1920	2:14½
1½	The Bastard, 3, 124, Newmarket, England.	October 18, 1929	2:23
1½	Ace Admiral, 4, 122, Santa Anita Park, Arcadia, Calif.	July 23, 1949	2:39½
1 mi. 5½ f.	Distribute, 9, 109, River Downs, Cincinnati, Ohio.	September 7, 1940	2:51½
1½	Buen Ojo, aged, 133, Montevideo, Uruguay, S. A.	January 8, 1922	2:52½
1½	Pharawell, 5, 119, Gulfstream Park, Hallandale, Fla.	April 8, 1947	3:13½
2	Polazel, 3, 142, Salisbury, England.	July 8, 1924	3:15
2 mi. 40 yd.	Winning Mark, 4, 107, Thistle Down Park, Cleveland, Ohio.	July 20, 1940	3:29½
2 mi. 70 yd.	Filisteo, 7, 116, Pimlico, Baltimore, Md.	October 30, 1941	3:30½
2½	Royal Castle, 3, 116, Jamaica, N. Y.	November 15, 1950	3:30½
2½	Centurion, 5, 119, Newbury, England.	September 29, 1923	3:35
2½	Santiago, 5, 112, Narragansett Park, Pawtucket, R. I.	September 27, 1941	3:51½
2½	Dakota, 4, 116, Lingfield, England.	May 27, 1927	3:37½
	Wiki Jack, 4, 97, Tijuana, Mexico.	February 8, 1925	4:15
2½	Miss Grillo, 6, 118, Pimlico, Md.	November 12, 1948	4:14½
2½	†Worthman, 5, 101, Tijuana, Mexico.	February 22, 1925	4:51½
2½	Shot Put, 4, 126, Washington Park, Homewood, Ill.	August 14, 1940	4:48½
2½	†Bosh, 5, 100, Tijuana, Mexico.	March 8, 1925	5:23
3	Farragut, 5, 113, Agua Caliente, Mexico.	March 9, 1941	5:15
3½	Winning Mark, 4, 104, Washington Park, Homewood, Ill.	August 21, 1940	6:13
4	Sotemia, 5, 119, Churchill Downs, Louisville, Ky.	October 7, 1912	7:10½

* ¾ mile course at Brighton is started from a hill and is down grade to within one-third of a mile of the finish.
† Track heavy. ‡ Track sloppy.

Straight Course

Distance	Horse, age, weight, track and location	Date	Time
¾	Bob Wade, 4, 122, Butte, Mont.	August 20, 1890	:21¼
¾	King Rhymer, 2, 118, Santa Anita Park, Arcadia, Calif.	February 27, 1947	:32
½	Gloaming, 6, 127, Trentham, Wellington, New Zealand.	January 12, 1921	:45
4½ f.	The Pimpernel, 2, 118, Belmont Park, Elmont, N. Y.	May 17, 1951	:49½
¾	Devineress, 3, 103, Epsom Downs, Epsom, England.	June 2, 1933	:54½
5½ f.	Delegate, 7, 113, Belmont Park, Elmont, N. Y.	October 10, 1951	1:01½
¾	Artful, 2, 130, Morris Park, New York, N. Y.	October 15, 1904	1:08
6½ f.	Porter's Mite, 2, 119, Belmont Park, Elmont, N. Y.	September 17, 1938	1:14½
	Native Dancer, 2, 122, Belmont Park, Elmont, N. Y.	September 27, 1952	1:14½
*Abt½	High Strung, 2, 122, Belmont Park, Elmont, N. Y.	September 15, 1928	1:19
¾	First Edition, 4, 126, Hurst Park, Hampton Court, England.	May 25, 1926	1:20
1	Mopsus, 3, 105, Brighton, England.	June 22, 1939	1:32
1½	Banquet, 3, 108, Monmouth Park, New Jersey.	July 17, 1890	2:03½

* 165 feet short of 7/8 mile.

New York Wagering, Attendance Records

Type of record	Amount	Track	Date
Mutuel handle (8 races)	\$5,016,745	Belmont	September 22, 1945
Mutuel handle (7 races)	4,330,471	Jamaica*	November 3, 1945
Mutuel handle (1 race)	763,127	Belmont	September 27, 1945
Daily double	251,682	Jamaica	October 30, 1945
Attendance	64,670	Jamaica	May 30, 1945

* Empire City meeting.

Man o' War's Record

(Bred by August Belmont. Owned by Glen Riddle Farm.)

1919

Date	Track	Race	Dist.	Wt.	Fin.	Time	Odds	Earnings
June 6	Belmont Park	Purse	½ st	115	1	:59	3-5	\$ 500
June 9	Belmont Park	Keene Memorial Stakes	5½ f st	115	1	1:05½	7-10	4,200
June 21	Jamaica	Youthful Stakes	5½ f	120	1	1:06½	1-2	3,850
June 23	Aqueduct	Hudson Stakes	½	130	1	1:01½	1-10	2,825
July 5	Aqueduct	Tremont Stakes	¾	130	1	1:13	1-10	4,800
Aug. 2	Saratoga	United States Hotel Stakes	¾	130	1	1:12½	9-10	7,600
Aug. 13	Saratoga	Sanford Memorial Stakes	¾	130	2	1:11½	11-20	700
Aug. 23	Saratoga	Grand Union Hotel Stakes	¾	130	1	1:12	11-20	7,600
Aug. 30	Saratoga	Hopeful Stakes	¾	130	1	1:13	9-20	24,600
Sept. 13	Belmont Park	Belmont Futurity	¾ st	127	1	1:11½	1-2	26,655

Total..... \$83,320

1920

Date	Track	Race	Dist.	Wt.	Fin.	Time	Odds	Earnings
May 18	Pimlico	Preakness Stakes	1½	126	1	1:51½	4-5	\$23,000
May 29	Belmont Park	Withers Stakes	1	118	1	1:35½	1-7	4,825
June 12	Belmont Park	Belmont Stakes	1½	126	1	2:14½	1-25	7,950
June 22	Jamaica	Stuyvesant Handicap	1	135	1	1:41½	1-100	3,850
July 10	Aqueduct	Dwyer Stakes	1½	126	1	1:49½	1-5	4,850
Aug. 7	Saratoga	Miller Stakes	1½	131	1	1:56½	1-30	4,700
Aug. 21	Saratoga	Travers Stakes	1½	129	1	2:01½	2-9	9,275
Sept. 4	Belmont Park	Lawrence Realization Stakes	1½	126	1	2:40½	1-100	15,040
Sept. 11	Belmont Park	Jockey Club Stakes	1½	118	1	2:28½	1-100	5,850
Sept. 18	Havre de Grace	Potomac Handicap	1½	138	1	1:44½	15-100	6,800
Oct. 12	Kenilworth Park	Kenilworth Park Gold Cup	1½	120	1	2:03	1-20	80,000

Total..... \$166,140

RECAPITULATION

Year	Age	Sts.	1st	2d	3d	Unp.	Earnings
1919	2	10	9	1	0	0	\$ 83,325
1920	3	11	11	0	0	0	166,140
Totals		21	20	1	0	0	\$249,465

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MEMBERS

Ak-Sar-Ben	Del Mar	Lincoln Downs	Randall Park
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Bowie	Hollywood	Oaklawn Park	Timonium
Centennial Park	Jamaica	Pimlico	United Hunts
Churchill Downs	Keeneland	Playfair	Washington Park
Delaware Park	Laurel		

Address—925 Chrysler Building, New York 17, N. Y.

Canadian Classic to Epigram

Epigram, owned by the Three V's Stable of Toronto, took the ninety-third running of the Queen's Plate at Woodbine Park,

Toronto, last May. The event, oldest stake race in North America, is known as the King's Plate when a male occupies England's throne.

OTHER STAKE WINNERS IN 1952

(This compilation does not include victors listed in tabular matter.)

Key to Abbreviations Used

AQ—Aqueduct (N. Y.)	DM—Del Mar (Calif.)	HO—Hollywood Park (Cal.)	P—Pimlico (Md.)
AP—Arlington Park (Ill.)	EC—Empire City (N. Y.)*	J—Jamaica (N. Y.)	RP—Rockingham Park (N. H.)
AC—Atlantic City (N. J.)	FG—Fair Grounds (La.)	K—Keeneland (Ky.)	S—Saratoga (N. Y.)
B—Bay Meadows (Calif.)	GS—Garden State (N. J.)	L—Laurel Park (Md.)	SA—Santa Anita Park (Cal.)
BE—Belmont Park (N. Y.)	GG—Golden Gate (Calif.)	LF—Lincoln Fields (Ill.)†	SD—Suffolk Downs (Mass.)
BO—Bowie (Md.)‡	GP—Gulfstream Park (Fla.)	MP—Monmouth Park (N. J.)	T—Tanforan (Calif.)
CD—Churchill Downs (Ky.)	HP—Hialeah Park (Fla.)	N—Narragansett Park (R. I.)	TP—Tropical Park (Fla.)
D—Detroit (Mich.)	HA—Hawthorne Park (Ill.)	OP—Oaklawn Park (Ark.)	WP—Washington Park (Ill.)
DP—Delaware Park (Del.)			

* At Jamaica. † At Washington Park. ‡ Bowie and Laurel spring meetings combined in 1952.

3-Year Olds and Over

Stake, track, winner, jockey, weight	Win value	Stake, track, winner, jockey, weight	Win value
ALL AMERICAN (AC)—Greek Ship, J. Culmone, 119	\$19,450	McLENNAN (HP)—Spartan Valor, J. Stout, 118	\$26,850
AMERICAN (HO)—Admiral Drake, G. Gilson, 113	32,800	MANHATTAN (BE)—Lone Eagle, C. Erillo, 107	23,950
ATLANTIC CITY TURF—Greek Ship, J. Culmone, 122	19,875	MEADOWLAND (WP)—Tio Ciro, P. J. Bailey, 110	19,025
AQUEDUCT—Bryan G., B. Green, 114	19,450	MERCHANTS' & CITIZENS' (S-at-J)—Crafty Admiral, E. Guerin, 126	19,450
ARGONAUT (HO)—Admiral Drake, W. Marsh, 108	33,550	MERMAID (AC)—Landmark, F. Fernandez, 110	11,950
ARLINGTON (AP)—To Market, W. Boland, 118	107,150	METROPOLITAN (BE)—Mameluke, G. Porch, 112	25,200
BAY SHORE (AQ)—Next Move, E. Guerin, 115	11,625	MIAMI BEACH (HP)—Plaster, N. Shuk, 115	13,350
BELDADE (AQ) (1st div.)—Next Move, E. Guerin, 125	43,400	MODESTY (AP)—Real Delight, E. Arcaro, 126	29,600
Beldame (AQ) (2d div.)—Real Delight, E. Arcaro, 126	42,400	MOLLY PITCHER (MP)—Dixie Flyer, P. Roberts, 116	17,000
BEVERLY (WP)—Real Delight, E. Arcaro, 129	17,425	MONMOUTH (MP)—One Hitter, T. Atkinson, 114	18,750
BIDWELL MEMORIAL (HA)—Ole Capitol, G. Porch, 114	19,750	NARRAGANSETT SPECIAL—General Staff, J. Stout, 111	19,450
BLACK HELEN (HP)—Roman Miss, K. Church, 117	18,175	NEW CASTLE (DP)—Kiss Me Kate, R. Nash, 128	43,250
BOWIE (L)—Three Rings, R. Sisto, 112	15,925	NEW ORLEANS (FG)—Oil Capitol, K. Church, 116	20,700
BRANDYWINE (DP)—Yildiz, R. Nash, 114	8,350	NEW YORK (BE)—Battiefield, E. Arcaro, 118	20,250
BROOKLYN (AQ)—Crafty Admiral, E. Guerin, 116	41,700	OCEAN CITY (AQ)—Greek Ship, J. Culmone, 119	11,850
BUCKEYE (Randall Park)—Euclid, J. Breckons, 118	18,880	OLYMPIC (AC)—Alerted, P. Anderson, 126	23,425
CAMDE N (GS)—Woodchuck, J. Stout, 122	17,450	PAUMONOK (J)—Woodchuck, J. Stout, 119	20,400
CARTER (AQ)—Northern Star, T. Atkinson, 115	20,250	PHOENIX (K)—Hill Gail, E. Arcaro, 116	8,800
CHURCHILL DOWNS—Here's Hoping, S. Brooks, 113	8,100	ROSEBEN (BE)—Dark Peter, A. Widman, 113	11,575
CLANG (WP)—Mark Ye-Well, E. Arcaro, 114	14,300	QUEENS COUNTY (AQ)—County Delight, D. Gorman, 121	14,975
CLARK (CD)—Seaward, K. Church, 113	7,825	QUESTIONNAIRE (EC)—Alerted, C. McCreary, 115	19,750
COLONIAL (GS) (1st div.)—Cinda, C. Burr, 110	15,575	SAN ANTONIO (SA)—Phil D., R. A. York, 117	17,450
COLONIAL (GS) (2d div.)—Tilly Rose, I. Hanford, 119	15,775	SAN CARLOS (SA)—To Market, E. Arcaro, 116	17,100
DEL MAR—Grantor, J. Longden, 113	15,450	SAN FRANCISCAN (GG)—Lights Up, R. Neves, 116	11,250
DIXIE (P)—Alerted, R. Sisto, 112	20,400	SAN JUAN CAPISTRANO (SA)—Intent, E. Guerin, 122	33,200
EDGEWARE (AQ)—Out Point, N. Wall, 108	22,300	SAN PASQUEL (SA)—Be Fleet, J. Longden, 113	15,150
EQUIPOISE MILE (AP)—Woodchuck, E. Arcaro, 122	19,350	SANTA MARGARITA (SA)—Bed o' Roses, W. Shoemaker, 123	39,550
EXCELSIOR (HP)—Spartan Valor, J. Stout, 126	18,950	SANTA MARIA (SA)—Special Touch, E. Arcaro, 121	13,800
FALL HIGHWEIGHT (all ages) (BE)—Hitz, E. Arcaro, 130	17,300	SARATOGA—One Hitter, T. Atkinson, 116	20,750
FIRENZE (J)—Next Move, E. Guerin, 126	22,900	SARATOGA CUP—Busanda, T. Atkinson, 121	11,325
FLEETWING (EC)—Tea-Maker, H. Woodhouse, 114	14,600	STARS AND STRIPES (AP)—Royal Mustang, P. J. Bailey, 109	18,625
FLORIDA DERBY (GP)—Sky Ship, R. Nash, 114	17,550	SUNSET (HO)—Great Circle, R. Heather, 112	31,700
GALLANT FOX (J)—Spartan Valor, J. Stout, 129	48,200	SUSSEX (DP)—Sun Bahram, A. Kirkland, 111	21,350
GOLDEN GATE—Lights Up, R. Neves, 123	34,800	T. J. HEALEY (GS)—Alerted, R. Sisto, 116	16,750
GOLDEN GATE MILE—Lights Up, R. Neves, 120	17,150	TOBOGGAN (B)—Dark Peter, A. Widman, 108	16,150
GULFSTREAM PARK—Crafty Admiral, C. Erillo, 114	19,850	TOP FLIGHT (BE)—Renew, W. Boland, 115	16,850
HAWTHORNE GOLD CUP—To Market, W. Boland, 123	39,800	VAGRANCY (AQ)—Marta, C. McCreary, 117	19,200
INGLEWOOD (HO)—Sturdy One, R. Neves, 111	15,700	VALLEY FORGE (GS)—Spartan Valor, J. Stout, 130	16,250
INTERBOROUGH (all ages)—Squared Away, E. Arcaro, 118	16,050	VANITY (HO)—Two Lea, H. Moreno, 122	15,900
JAMAICA—Tea-Maker, H. Woodhouse, 112	12,025	VOSBURGH (all ages) (BE)—Parading Lady, J. Hardinbrook, 105	16,150
JOCKEY CLUB GOLD CUP (BE)—One Count, D. Gorman, 117	52,100	WASHINGTON PARK—Crafty Admiral, E. Guerin, 128	119,900
LADIES' (BE)—How, N. Shuk, 112	40,900	WHIRLAWAY (WP)—Crafty Admiral, E. Arcaro, 126	27,850
LAUREL—Hi Billee, N. Shuk, 118	11,225	WHITNEY (S)—Counterpoint, D. Gorman, 123	15,800
LONGACRES MILE—Eddie's Boy, G. Hernandez, 119	9,925	WILMINGTON (DP)—Tea-Maker, D. Gorman, 121	8,775
LOUISIANA (FG)—Light Broom, A. Popara, 120	8,125	WILSON (S)—Tom Fool, T. Atkinson, 106	11,100

Intent Wins Richest Race

Brookfield Farms' Intent won the \$183,750 Santa Anita Maturity, richest horse race in the world, in 1952. First money in the mile and one-quarter test for 4-year-

olds at Santa Anita Park, Arcadia, Calif., amounted to \$112,750. Charfran Stable's Crafty Admiral captured the \$172,400 Washington Park Handicap, richest handicap in turf history, and earned \$119,900.

3-Year-Olds

Stake, track, winner, jockey, weight	Win value
ABSECON ISLAND (AC)—Tio Ciro, S. Boulmetis, 115.	\$15,700
ACORN (BE)—Parading Lady, J. Hardinbrook, 121.	18,650
ALABAMA (S)—Lily White, T. Atkinson, 109.	17,000
ARLINGTON MATRON (AP)—Real Delight, E. Arcaro, 125.	37,800
ARKANSAS DERBY (OP)—Gushing Oil, A. Popara, 126.	7,425
ASHLAND (K) (1st div.)—Free For Me, J. D. Jessop, 112.	8,085
ASHLAND (K) (2d div.)—Real Delight, E. Arcaro, 114.	8,085
BAHAMAS (HP) (1st div.)—Quiet Step, D. Dodson, 115.	9,075
BAHAMAS (HP) (2d div.)—Trick Pilot, O. Scourlock, 110.	8,975
BETSY ROSS (GS)—Cinda, C. Burr, 121.	19,000
BLACK-EYED SUSAN (P)—Real Delight, E. Arcaro, 121.	16,500
BLUE GRASS (K)—Gushing Oil, S. Brooks, 123.	19,447
CHESAPEAKE (L)—Handsome Teddy, R. Sisto, 113.	17,475
CHOICE (MP)—Count Flame, H. Woodhouse, 114.	19,850
CINEMA (HO)—A Gleam, H. Moreno, 124.	17,500
CLEOPATRA (AP)—Real Delight, E. Arcaro, 121.	10,925
C. C. AMERICAN OAKS (BE)—Real Delight, E. Arcaro, 115.	45,100
DEBONAIRE (HO)—A Gleam, H. Moreno, 118.	16,200
DELAWARE OAKS (DP)—Big Mo, N. Shuk, 110.	31,425
DEL MAR DERBY—Southampton, R. Summers, 108.	9,750
DERBY TRIAL (CD)—Hill Gail, E. Arcaro, 118.	8,775
DISCOVER (AQ)—Ancestor, T. Atkinson, 107.	19,550
DWYER (AQ)—Blue Man, C. McCreary, 126.	39,300
EXPERIMENTAL NO. 1 (J)—Hannibal, W. J. Passmore, 119.	14,600
EXPERIMENTAL NO. 2 (J)—Blue Man, C. McCreary, 114.	19,000
FLAMINGO (HP) (1st div.)—Blue Man, C. McCreary, 117.	47,450
FLAMINGO (HP) (2d div.)—Charlie McAdam, S. Boulmetis, 117.	47,450
GAZELLE (AQ)—Hushaby Baby, R. York, 113.	19,325
GOLDEN GATE DERBY—Marcador, R. L. Baird, 117.	16,900
HOLLYWOOD OAKS (HP)—A Gleam, H. Moreno, 118.	16,650
JEROME (BE)—Tom Fool, T. Atkinson, 120.	17,100
JERSEY (GS)—King Jolie, J. Stout, 111.	25,850
KENT (DP)—High Sead, I. Hanford, 113.	22,350
KENTUCKY OAKS (CD)—Real Delight, E. Arcaro, 121.	23,100
LAWRENCE REALIZATION (BE)—Mark-Ye-Well, E. Arcaro, 118.	20,000
LOUISIANA DERBY (FG)—Gushing Oil, A. Popara, 111.	16,400
LEONARD RICHARDS (DP)—Jampol, E. Rodriguez, 119.	32,035
MSS WOODFORD (MP)—Nilufer, S. Boulmetis, 112.	13,650
MISTY ISLE (WP)—Princess Lygia, K. Church, 122.	13,975
MONMOUTH OAKS (MP)—La Corredora, I. Hanford, 117.	18,950
PEABODY MEMORIAL (LF)—Gushing Oil, S. Brooks, 125.	18,325
PETER PAN (BE)—Armageddon, R. York, 122.	18,350
PROVIDENCE (N)—Jampol, E. Rodriguez, 123.	19,000
SAN FELIPE (SA)—Windy City II, E. Arcaro, 126.	18,000
SANTA BARBARA (SA)—Last Greetings, E. Arcaro, 119.	10,900
SANTA SUSANA (SA)—Season's Best, A. Kolonics, 114.	13,400
SANTA YNEZ (SA)—Last Greetings, E. Arcaro, 119.	14,700
SARANAC (S-at-J)—Golden Gloves, N. Wall, 116.	16,600
SELECT (MP)—Hannibal, W. J. Passmore, 122.	14,850
SHERIDAN (WP)—Sub Fleet, E. Arcaro, 123.	18,900
SHEVLIN (AQ)—Golden Gloves, N. Wall, 112.	15,500
SWIFT (BE) (1st div.)—Charlie McAdam, S. Boulmetis, 126.	12,062
SWIFT (BE) (2d div.)—Sky Ship, D. Gorman, 126.	11,912
WARREN WRIGHT MEMORIAL (AP)—Red Charger, A. Vassili, 110.	14,000
WESTERNER (HO)—A Gleam, H. Moreno, 118.	36,550
WILL ROGERS (HO)—Forelock, R. L. Baird, 110.	17,250
WITHERS (BE)—Armageddon, R. York, 126.	22,000
YANKEE (SD)—Blue Man, C. McCreary, 126.	38,950
PRIORRESS (J)—Landmark, D. Gorman, 121.	12,250
OAKLAND (GG)—Marcador, R. L. Baird, 112.	9,700
SAN VICENTE (SA)—Hill Gail, S. Brooks, 122.	15,950

2-Year-Olds

Stake, track, winner, jockey, weight	Win value
ARLINGTON LASSIE (AP)—Fulvous, S. Brooks, 119.	\$53,275
ASTARITA (AQ)—Grecian Queen, E. Guerin, 119.	8,925
ASTORIA (AQ)—Home-Made, E. Guerin, 119.	9,925
BABYLON (AQ)—Invicta, D. Gorman, 117.	9,375
BASHFORD MANOR (CD)—Ace Destroyer, T. Barrow, 122.	9,187
CHAMPAGNE (BE)—Laffango, N. Shuk, 122.	25,600
CHARLES S. HOWARD (HO)—De Anza, R. Neves, 113.	17,550
CHRISTIANA (DP)—Centime, D. Gorman, 119.	11,075
CINDERELLA (HO)—Haunted, R. L. Baird, 119.	17,050
CLELEN (MP)—Late Model, G. Hesterman, 114.	16,800
COWDIN (AQ)—Invigorator, D. Gorman, 122.	18,025
DEBUTANTE (CD)—Bubbly, E. Arcaro, 119.	11,125
DEL MAR DEBUTANTE—Lap Full, H. Moreno, 112.	23,100
DEL MAR FUTURITY—Hour Regards, E. LeBlanc, 115.	32,200
DOVER (DP)—Tahiti, R. Nash, 116.	11,725
FASHION (BE)—Countess Jane, T. Atkinson, 119.	11,025
GEO. WOOLF MEMORIAL (WP)—Tuonine, J. Heckmann, 110.	12,200
GRAND UNION HOTEL (S)—Native Dancer, E. Guerin, 126.	15,500
GREAT AMERICAN (AQ)—Bradley, T. Atkinson, 114.	13,475
HAGGIN (HO)—Little Request, J. Longden, 122.	17,350
HOPEFUL (S)—Native Dancer, E. Guerin, 122.	61,450
HOLLYWOOD LASSIE (HO)—Fleet Khal, R. Heather, 115.	15,500
HYDE PARK (AP)—Sir Mango, P. J. Bailey, 115.	17,300
JOLIET (LF)—Dean Cavy, J. Adams, 122.	8,175
JULENILE (BE)—Fort Salonga, S. Boulmetis, 119.	13,075
LAFAYETTE (K) (1st div.)—Happy Carrier, G. Porch, 117.	10,126
LAFAYETTE (K) (2d div.)—Aerolito, D. Dodson, 114.	9,963
MATRON (BE)—Is Proud, C. McCreary, 119.	40,960
NATIONAL STALLION (colts) (BE)—Tahitian King, E. Arcaro, 117.	17,940
NATIONAL STALLION (fillies) (BE)—Home-Made, E. Guerin, 119.	18,410
NEW JERSEY FUTURITY (MP)—High Hatter, F. Fernandez, 114.	11,795
POLLYANNA (WP)—Bubbly, E. Arcaro, 119.	11,750
POLLY DRUMMOND (DP)—Flirtatious, J. Stout, 116.	12,725
PRAIRIE STATE (WP)—Ace Destroyer, J. Adams, 117.	15,775
PRIMER (AP)—Happy Carrier, G. Porch, 122.	14,400
PRINCESS PAT (WP)—Fulvous, D. Erb, 119.	55,825
RANCOCAS (GS)—Biddy Jane, L. C. Cook, 116.	10,700
ROSEDALE (J) (1st div.)—Countess Jane, T. Atkinson, 114.	8,652
ROSEDALE (J) (2d div.)—Emardee, E. Arcaro, 115.	8,862
SANFORD (S)—Bradley, J. Nichols, 122.	7,975
SAPLING (MP) (1st div.)—Landlocked, F. Fernandez, 113.	21,275
SAPLING (MP) (2d div.)—Laffango, F. Pannell, 122.	21,525
SARATOGA SPECIAL—Native Dancer, E. Guerin, 122.	17,000
SCHUYLERVILLE (S)—Grecian Queen, R. York, 111.	9,525
SPINAWAY (S)—Flirtatious, D. Gorman, 119.	15,775
STARLET (HO)—Little Request, J. Longden, 122.	20,350
TREMONT (AQ)—Hilarious, E. Guerin, 122.	9,975
U. S. HOTEL (S)—Tahitian King, R. York, 122.	16,625
WAKEFIELD (EC)—Real Brother, E. Guerin, 117.	9,125
WM. PENN (GS)—Fort Salonga, S. Boulmetis, 117.	9,225
YOUTHFUL (J)—Native Dancer, E. Guerin, 117.	11,325

Indians and Browns Tie Record

A nineteen-inning game between the Indians and St. Louis Browns at Cleveland on July 1, 1952, equaled the record for the longest night engagement in the history of the majors. The Indians won, 4-3. The marathon contest tied the mark set in 1950 when the Philadelphia Phillies defeated the Cincinnati Reds, 8-7, and matched in 1951 as the Chicago White Sox edged the Boston Red Sox, 5-4.

FOOTBALL

THE PASTIME of kicking a ball around goes back beyond the limits of recorded history. Ancient savage tribes played football of a primitive kind. There was a ball-kicking game played by Athenians and Spartans and Corinthians 2500 years ago and the Greeks had a name for it: *Episkuros*. The Romans had a somewhat similar game called *Harpastum* and are supposed to have carried the game with them when they invaded the British Isles in the First Century, B.C.

Undoubtedly the game known in the United States as Football traces directly to the English game of Rugby, though the modifications have been many and rather sweeping in some directions. There was informal football on our college lawns well over a century ago and an annual Freshman-Sophomore series of "scrimmages" began at Yale in 1840. But the first formal intercollegiate football game in this country was the Princeton-Rutgers contest played at New Brunswick, N. J., on Nov. 6, 1869, with Rutgers winning by 6 goals to 4. Columbia took to the intercollegiate football field in 1870 and Yale in 1872. Soon many colleges were playing football in the autumn.

In those old days games were played with twenty-five, twenty, fifteen or eleven

men on a side by mutual agreement. In 1880 there was a football convention at which Walter Camp of Yale persuaded the delegates to agree to a rule calling for eleven players on a side. In 1882 there was adopted the rule requiring the offensive team to make 5 yards in three downs or surrender the ball to its opponents. The game grew so rough that it was attacked as brutal by many critics and some colleges abandoned the sport. Conditions were so bad in 1906 that President Theodore Roosevelt, an enthusiast for all sports, called a meeting of Yale, Harvard and Princeton representatives at the White House in the hope of reforming and improving the game. The outcome was that the game, with the forward pass introduced and some other modifications of the rules inserted, became faster and cleaner and gradually grew to the tremendous popularity it enjoys today.

Professional football, now firmly established, is an outgrowth of intercollegiate football. The first professional game was played in 1895 at Latrobe, Pa. The National Football League was founded in 1921. The All-America Conference went into action in 1946. At the end of the 1949 season the two major play-for-pay circuits merged, retaining the name of the older league.

RECORD OF ANNUAL POSTSEASON GAMES

Source: Official N.C.A.A. Football Guide

Rose Bowl (Pasadena, Calif.)

1902	Michigan 49, Stanford 0	1934	Columbia 7, Stanford 0
1916	Washington State 14, Brown 0	1935	Alabama 29, Stanford 13
1917	Oregon 14, Pennsylvania 0	1936	Stanford 7, Southern Methodist 0
1918	Mare Island Marines 19, Camp Lewis 7	1937	Pittsburgh 21, Washington 0
1919	Great Lakes 17, Mare Island Marines 0	1938	California 13, Alabama 0
1920	Harvard 7, Oregon 6	1939	Southern California 7, Duke 3
1921	California 28, Ohio State 0	1940	Southern California 14, Tennessee 0
1922	Washington & Jefferson 0, California 0	1941	Stanford 21, Nebraska 13
1923	Southern California 14, Penn State 3	1942	Oregon State 20, Duke 16*
1924	Navy 14, Washington 14	1943	Georgia 9, U. C. L. A. 0
1925	Notre Dame 27, Stanford 10	1944	Southern California 29, Washington 0
1926	Alabama 20, Washington 19	1945	Southern California 25, Tennessee 0
1927	Alabama 7, Stanford 7	1946	Alabama 34, Southern California 14
1928	Stanford 7, Pittsburgh 6	1947	Illinois 45, U. C. L. A. 14
1929	Georgia Tech 8, California 7	1948	Michigan 49, Southern California 0
1930	Southern California 47, Pittsburgh 14	1949	Northwestern 20, California 14
1931	Alabama 24, Washington State 0	1950	Ohio State 17, California 14
1932	Southern California 21, Tulane 12	1951	Michigan 14, California 6
1933	Southern California 35, Pittsburgh 0	1952	Illinois 40, Stanford 7

* Played at Durham, N. C.

Tuna Honors to Cuba

Cuba won the 1952 international tuna tournament for the Alton B. Sharp Trophy off Wedgeport, Nova Scotia, for its third victory in the event. The final standing:

	Pts.		Pts.
Cuba	3,009	British Empire	1,640
United States	2,395	Brazil	302
Mexico	2,000	Venezuela	000

Button Turns Professional

Dick Button, figure skating's outstanding performer, joined the professional ranks in 1952 by signing a contract for \$150,000 for limited appearances in a revue. As an amateur Button won five world championships, two Olympic, seven United States, three North American and one European.

Sugar Bowl (New Orleans, La.)

1935	Tulane 20, Temple 14
1936	Texas Christian 3, Louisiana State 2
1937	Santa Clara 21, Louisiana State 14
1938	Santa Clara 6, Louisiana State 0
1939	Texas Christian 15, Carnegie Tech 7
1940	Texas A & M 14, Tulane 13
1941	Boston College 19, Tennessee 13
1942	Fordham 2, Missouri 0
1943	Tennessee 14, Tulsa 7
1944	Georgia Tech 20, Tulsa 18
1945	Duke 29, Alabama 26
1946	Oklahoma A & M 33, St. Mary's (Calif.) 13
1947	Georgia 20, North Carolina 10
1948	Texas 27, Alabama 7
1949	Oklahoma 14, North Carolina 6
1950	Oklahoma 35, Louisiana State 0
1951	Kentucky 13, Oklahoma 7
1952	Maryland 28, Tennessee 13

Cotton Bowl (Dallas, Tex.)

1937	Texas Christian 16, Marquette 6
1938	Rice 28, Colorado 14
1939	St. Mary's (Calif.) 20, Texas Tech 13
1940	Clemson 6, Boston College 3
1941	Texas A & M 13, Fordham 12
1942	Alabama 29, Texas A & M 21
1943	Texas 14, Georgia Tech 7
1944	Randolph Field 7, Texas 7
1945	Oklahoma A & M 34, Texas Christian 0
1946	Texas 40, Missouri 27
1947	Louisiana State 0, Arkansas 0
1948	Southern Methodist 13, Penn State 13
1949	Southern Methodist 21, Oregon 13
1950	Rice 27, North Carolina 13
1951	Tennessee 20, Texas 14
1952	Kentucky 20, Texas Christian 7

Orange Bowl (Miami, Fla.)

1933	Miami 7, Manhattan 0	1943	Alabama 37, Boston College 21
1934	Duquesne 33, Miami 7	1944	Louisiana State 19, Texas A & M 14
1935	Bucknell 26, Miami 0	1945	Tulsa 26, Georgia Tech 12
1936	Catholic University 20, Mississippi 19	1946	Miami 13, Holy Cross 6
1937	Duquesne 13, Mississippi State 12	1947	Rice 8, Tennessee 0
1938	Alabama Poly. 6, Michigan State 0	1948	Georgia Tech 20, Kansas 14
1939	Tennessee 17, Oklahoma 0	1949	Texas 41, Georgia 28
1940	Georgia Tech 21, Missouri 7	1950	Santa Clara 21, Kentucky 13
1941	Mississippi State 14, Georgetown 7	1951	Clemson 15, Miami (Fla.) 14
1942	Georgia 40, Texas Christian 26	1952	Georgia Tech 17, Baylor 14

Famous Series Records

Until 1883, when scoring by points was generally adopted, scores were kept by goals, touchdowns and safeties. Earlier results of Big Three games: 1873—Prin. 3, Yale 0; Harv. 4G, 2T, Yale 0; 1876—Yale 1G, Harv. 2T; Yale 10, Prin. 0; 1877—Yale 0, Prin. 0; Harv. 1G, 1T, Prin. 1T (Spring); Prin. 1G, 1T, Harv. 2T (Fall); 1878—Yale 1G, 7S, Harv. 13S; Prin. 1, Yale 0; Prin. 1T, Harv. 0; 1879—Harv. 4S, Yale 2S; Yale 0, Prin. 0; Prin. 1G, Harv. 0; 1880—Yale 1G, 1T, 2S, Harv. 9S; Yale 0, Prin. 0; Prin. 2G, 2T, Harv. 1G, 1T; 1881—Harv. 4S, Yale 0; Yale 0, Prin. 0; Harv. 0, Prin. 0; 1882—Yale 1G, 3T, Harv. 2S; Yale 2, Prin. 1; Harv. 1G, 1T, Prin. 1G.

Year	Harv. Yale	Yale Prin.	Harv. Prin.	Army-Navy	Year	Harv. Yale	Yale Prin.	Harv. Prin.	Army-Navy
1883	2 23	5 0	7 26	.. ..	1919	10 3	6 13	10 10	0 6
1884	0 52	0 0	6 36	.. ..	1920	9 0	0 20	14 14	0 7
1885	.. ..	5 6	.. ..	.. ..	1921	10 3	13 7	3 10	0 7
1886	4 29	0 0	0 12	.. ..	1922	10 3	0 3	3 10	17 14
1887	8 17	12 0	12 0	.. ..	1923	0 13	27 0	5 0	0 0
1888	.. ..	10 0	6 18	.. ..	1924	6 19	10 0	0 34	12 0
1889	0 6	0 10	15 41	.. ..	1925	0 0	12 25	0 36	10 3
1890	12 6	32 0	.. ..	0 24	1926	7 12	7 10	0 12	21 21
1891	0 10	19 0	.. ..	32 16	1927	0 14	14 6	.. ..	14 9
1892	0 6	12 0	.. ..	4 12	1928	17 0	2 12	.. ..	.. ..
1893	0 6	0 6	.. ..	4 6	1929	10 6	13 0	.. ..	.. ..
1894	4 12	24 0	.. ..	.. ..	1930	13 0	10 7	.. ..	6 0
1895	.. ..	20 10	4 12	.. ..	1931	0 3	51 14	.. ..	17 7
1896	.. ..	6 24	0 12	.. ..	1932	0 19	7 7	.. ..	20 0
1897	0 0	6 0	.. ..	.. ..	1933	19 6	2 27	.. ..	12 7
1898	17 0	0 6	.. ..	.. ..	1934	0 14	7 0	0 19	0 3
1899	0 0	10 11	.. ..	17 5	1935	7 14	7 38	0 35	28 6
1900	0 28	29 5	.. ..	7 11	1936	13 14	26 23	14 14	0 7
1901	22 0	12 0	.. ..	11 5	1937	13 6	26 0	34 6	6 0
1902	0 23	12 5	.. ..	22 8	1938	7 0	7 20	26 7	14 7
1903	0 16	6 11	.. ..	40 5	1939	7 20	7 13	6 9	0 10
1904	0 12	12 0	.. ..	11 0	1940	28 0	7 10	0 0	0 14
1905	0 6	23 4	.. ..	6 6	1941	14 0	6 20	6 4	6 14
1906	0 6	0 0	.. ..	0 10	1942	3 7	13 6	19 14	0 14
1907	0 12	12 10	.. ..	0 6	1943	.. ..	27 6	.. ..	0 13
1908	4 0	11 6	.. ..	6 4	1944	.. ..	.. ..	.. ..	23 7
1909	0 8	17 0	.. ..	.. ..	1945	0 28	20 14	.. ..	32 13
1910	0 0	5 3	.. ..	0 3	1946	14 27	30 2	13 12	21 18
1911	0 0	3 6	6 8	0 3	1947	21 31	0 17	7 33	21 0
1912	20 0	6 6	16 6	0 6	1948	20 7	14 20	7 47	21 21
1913	15 5	3 3	3 0	22 9	1949	6 29	13 21	13 33	38 0
1914	36 0	19 14	20 0	20 0	1950	6 14	12 47	26 63	2 14
1915	41 0	13 7	10 6	14 0	1951	21 21	0 27	13 54	7 42
1916	3 6	10 0	3 0	15 7	1952	.. ..	21 27	21 41	.. ..

Intercollegiate Football Records, 1952

NOTE—This compilation includes games played through Nov. 15. Those desiring later results may obtain them by writing to the Information Please Almanac, 444 Madison Ave., New York 22, N. Y., enclosing a stamped return envelope and stating scores wanted.

ADELPHI		AUBURN		BRIGHAM YOUNG		COLBY	
19—Penn M. C.	13	7—Maryland	13	14—New Mexico	10	18—Coast Guard Acad.	20
6—Scranton	33	7—Mississippi	20	28—Montana	7	19—Norwich	13
13—Bridgeport	0	54—Wofford	7	6—Utah	34	13—Trinity	12
14—Brooklyn College	0	0—Georgia Tech.	33	13—Denver	13	6—Bowdoin	12
7—Upsala	20	6—Tulane	21	13—Wyoming	24	13—Maine	17
19—Wilkes	14	21—Florida	31	27—San Jose State	44	0—Bates	7
7—New Haven T.	19	34—Miss. State	49	26—Utah State	27		
0—Kings Point	0	7—Georgia	13				
ALABAMA		BATES		BROWN		COLGATE	
20—Miss. Southern	6	13—Tufts	13	0—Yale	28	14—Cornell	7
21—Louisiana State	20	6—Massachusetts	39	6—R. I. State	7	13—Buffalo	0
21—Miami	7	19—Middlebury	14	0—Holy Cross	46	12—Rutgers	7
33—V. P. I.	0	7—Hofstra	26	7—Rutgers	19	20—Harvard	21
0—Tennessee	20	7—Northeastern	27	0—Princeton	39	28—Bucknell	9
42—Miss. State	19	6—Maine	62	21—Connecticut	13	53—Mississippi Coll.	12
34—Georgia	19	6—Bowdoin	28	28—Harvard	21	7—Holy Cross	13
42—Chattanooga	28	17—Colby	0			13—Syracuse	20
3—Georgia Tech.	7						
ALBRIGHT		BAYLOR		BUCKNELL		COLL. OF PACIFIC	
0—Temple	21	17—Wake Forest	14	45—Lafayette	13	13—California	34
28—Lafayette	6	21—Wash. State	7	46—Muhlenberg	12	34—Utah State	21
7—Gettysburg	0	17—Arkansas	20	19—Temple	12	42—Texas Tech.	21
13—Muhlenberg	7	21—Texas Tech.	10	22—Buffalo	0	21—San Jose St.	28
3—F. and M.	20	21—Texas A. & M.	20	0—Colgate	28	7—San Diego Naval	26
43—Moravian	14	20—Texas Christian	20	28—Lehigh	6	14—Oregon	6
21—Lebanon Valley	19	33—Texas	35	7—Geo. Washington	21	27—Santa Clara	0
20—Penn M. C.	0	6—Houston	28	26—Gettysburg	21	50—Fresno State	0
ALFRED		BOSTON COLLEGE		BUFFALO		COLORADO	
52—Brookport	6	14—Richmond	7	13—Cortland	33	20—San Jose St.	14
27—R. P. I.	28	7—Wake Forest	7	7—Connecticut	47	21—Oklahoma	21
33—Cortland	28	20—Drake	14	0—Colgate	13	12—Kansas	21
19—St. Lawrence	14	7—Villanova	28	0—Lehigh	22	34—Arizona	19
34—Hofstra	14	14—Fordham	13	0—Bucknell	22	21—Iowa State	12
19—Buffalo	7	0—Clemson	20	13—Western Reserve	35	20—Nebraska	16
20—Hobart	20	23—Detroit	6	7—Alfred	19	7—Utah	27
		0—Xavier (Ohio)	6	12—St. Lawrence	6	7—Missouri	10
AMHERST		BOSTON UNIV.		CALIFORNIA		34—Kansas State	14
0—American Int'l.	21	6—Wichita	0	31—Coll. of Pacific	13	COLUMBIA	
28—Union	21	21—Syracuse	34	28—Missouri	14	0—Princeton	14
7—Bowdoin	14	0—Marquette	21	49—Minnesota	13	16—Harvard	7
33—Coast Guard Acad.	31	0—Miami (Fla.)	9	27—Oregon	7	28—Yale	36
0—Wesleyan	0	23—Wm. and Mary	28	7—Santa Clara	7	17—Pennsylvania	27
35—Tufts	0	0—Lehigh	20	0—So. California	10	14—Army	14
0—Trinity	7	7—Maryland	34	7—U. C. L. A.	28	10—Cornell	21
21—Williams	19	14—Temple	14	7—Washington	22	14—Dartmouth	38
ARIZONA		14—New York Univ.	7	28—Wash. State	13	0—Navy	28
57—Hawaii	7	BOWDOIN		CARNEGIE TECH.		CONNECTICUT	
62—New Mex. A.&M.	12	20—Tufts	35	21—California (Pa.) T.	27	13—Yale	34
27—Utah	0	7—Wesleyan	27	27—Bethany	12	47—Buffalo	7
19—Colorado	34	31—Amherst	7	40—Johns Hopkins	6	26—Massachusetts	13
7—Marquette	37	26—Williams	18	19—Allegheny	0	13—Maine	7
13—Hardin-Simm.	12	7—Colby	6	10—Case	35	0—Delaware	13
13—New Mexico	20	28—Bates	6	20—W. and J.	26	16—New Hampshire	12
18—Tempe State	20	33—Maine	14	6—Lehigh	26	13—Brown	21
58—Texas Western	7					25—R. I. State	28
ARKANSAS		BRADLEY		CINCINNATI		CORNELL	
22—Okla. A. & M.	20	7—Kansas State	21	13—Kansas State	6	7—Colgate	14
7—Houston	17	21—California Poly.	0	14—Tulsa	14	7—Navy	31
7—Texas Christian	13	0—Wichita	13	20—Xavier	13	6—Syracuse	28
20—Baylor	17	14—Bowling Green	21	7—Kentucky	0	0—Vale	13
7—Texas	44	40—Wayne	21	41—Western Reserve	2	0—Princeton	27
7—Mississippi	31	33—Drake	0	41—Ohio U.	0	21—Columbia	14
12—Texas A. & M.	34	29—North Dakota St.	13	54—Wash. & Lee	7	7—Michigan	49
23—Rice	35	14—Toledo	20			13—Dartmouth	7
17—So. Methodist	27	0—John Carroll	41				
ARMY		BRANDEIS		THE CITADEL		DARTMOUTH	
28—South Carolina	7	32—Bridgeport	7	6—Georgia Tech.	54	9—Holy Cross	27
0—So. California	22	28—Northeastern	13	7—V. P. I.	14	0—Pennsylvania	7
37—Dartmouth	7	41—Arnold	25	6—Florida	33	7—Army	37
14—Pittsburgh	22	31—Wayne	19	18—Newberry	7	29—Rutgers	20
44—Columbia	14	6—Massachusetts	26	7—Furman	7	19—Harvard	28
42—V. M. I.	14	19—American Int'l.	42	28—Presbyterian	7	7—Yale	21
6—Georgia Tech.	45	27—New Haven T.	0	0—South Carolina	35	38—Columbia	14
14—Pennsylvania	13			19—V. M. I.	20	7—Cornell	13
ARNOLD		BROOKLYN COLL.		CLEMSON		DAVIDSON	
13—St. Michael's	9	12—Hobart	48	53—Presbyterian	13	14—V. P. I.	27
26—Brandeis	41	0—Hamilton	62	7—Villanova	14	14—W. and L.	33
7—Kings	14	20—National Aggies	20	0—Maryland	28	6—N. C. State	28
13—Bridgeport	6	0—Adelphi	14	20—Florida	54	13—Presbyterian	12
0—Hofstra	28	4—Wagner	40	0—South Carolina	6	13—Furman	14
8—Quonset Naval	7	0—Kings Point	33	13—Boston College	0	0—Harvard	35
13—E. Stroudsburg T.	14	7—R. I. State	55	12—Fordham	12	38—Richmond	19
				14—Kentucky	27	13—Geo. Washington	40

DELAWARE

12—Gettysburg	14
7—Lehigh	6
20—West Chester T.	24
13—Connecticut	25
12—Muhlenberg	21
43—Penn M. C.	12
13—Lafayette	12

DENVER

34—Colorado Coll.	12
29—Lowry AFB	0
6—Colo. A. & M.	28
7—Montana	17
0—Utah	35
13—Brigham Young	14
27—Drake	19
0—New Mexico	15

DETROIT

22—Wichita	7
7—Villanova	21
27—Marquette	37
57—Drake	0
6—Okla. A. & M.	21
26—Fordham	20
20—Boston College	23
21—Tulsa	62

DICKINSON

0—Trinity	21
18—Allegheny	0
21—F. and M.	33
7—West. Maryland	6
8—Juniata	10
26—Drexel	33
7—Gettysburg	35
14—Johns Hopkins	32

DRAKE

14—Iowa State T.	12
13—Dayton	34
34—Emperla St.	18
14—Boston College	20
0—Detroit	57
0—Bradley	33
19—Denver	27
7—Iowa State	55
14—Wichita	41

DREXEL

7—Penn M. C.	12
47—Ursinus	39
13—F. and M.	31
21—Randolph-Macon	12
33—Dickinson	26
0—West. Maryland	6
7—Swarthmore	26

DUKE

34—W. and L.	0
14—So. Methodist	7
7—Tennessee	0
3—South Carolina	0
67—N. C. State	7
21—Virginia	7
7—Georgia Tech.	28
6—Navy	16
14—Wake Forest	7

FLORIDA

33—Stetson	6
14—Georgia Tech.	17
33—The Citadel	0
54—Clemson	13
13—Vanderbilt	20
30—Georgia	0
31—Auburn	21
12—Tennessee	26

FORDHAM

7—Holy Cross	12
8—Quincy M.	21
13—Boston College	14
12—Detroit	28
12—Clemson	12
33—Temple	6

F. AND M.

19—Johns Hopkins	13
33—Dickinson	21
31—Drexel	13
20—Albright	13
40—American Int'l.	38
68—Ursinus	19
7—Muhlenberg	0

FURMAN

47—Newberry	6
22—West Virginia	14
7—South Carolina	27
14—Stetson	25
7—The Citadel	7
14—Davidson	13
29—Wofford	21
27—Presbyterian	6
9—Florida State	0

GEORGIA

19—Vanderbilt	7
21—Tulane	10
49—N. C. State	0
0—Maryland	37
27—Louisiana State	14
0—Florida	30
19—Alabama	34
34—Pennsylvania	27
13—Auburn	7

GEORGIA TECH

54—The Citadel	6
17—Florida	14
20—So. Methodist	7
14—Tulane	0
33—Auburn	0
30—Vanderbilt	0
29—Duke	7
45—Army	5
7—Alabama	3

GEO. WASHINGTON

39—N. C. State	0
03—W. and L.	28
0—Virginia	50
6—Virginia Tech.	0
21—V. M. I.	20
2—West Virginia	24
21—Bucknell	7
40—Davidson	13

GETTYSBURG

14—Delaware	13
28—West. Maryland	6
0—Albright	7
7—Lehigh	15
32—Muhlenberg	37
34—Lebanon Valley	25
33—Dickinson	7
21—Bucknell	26

HAMILTON

52—Brooklyn College	0
33—Wagner	20
26—Swarthmore	33
32—Haverford	13
6—Hobart	6
6—Rochester	33
31—Union	7

HARVARD

27—Springfield	7
7—Columbia	16
42—Washington (St. L.)	0
21—Colgate	26
26—Dartmouth	19
35—Davidson	26
31—Princeton	41
21—Brown	28

HAVERFORD

13—Wagner	18
6—Juniata	36
0—Ursinus	32
13—Hamilton	32
6—Union	25
14—Susquehanna	47

HOBART

48—Brooklyn College	12
0—Trinity	34
26—Allegheny	12
13—Kenyon	14
13—Union	6
6—Hamilton	6
20—Alfred	20

HOFSTRA

34—Cortland T.	6
21—Lawrence	7
26—Eates	7
20—Wilkes	13
21—Alfred	34
28—Arnold	0
44—Kings Point	20
25—Upsala	7

HOLY CROSS

27—Dartmouth	9
12—Fordham	7
35—N. Y. U.	0
46—Brown	0
19—Syracuse	20
7—Marquette	0
13—Colgate	7
16—Quantico Marines	27

IDAHO

14—Washington	39
21—Utah	21
14—Oregon	20
0—Utah State	3
54—North Dakota St.	9
7—Santa Clara	9
6—Wash. State	36
27—Montana	0
27—Oregon State	6

ILLINOIS

33—Iowa State	7
6—Wisconsin	20
48—Washington	14
7—Minnesota	13
12—Purdue	40
0—Michigan	13
0—Iowa	13
7—Ohio State	27

INDIANA

13—Ohio State	33
20—Iowa	13
13—Michigan	28
33—Temple	0
13—Northwestern	23
7—Pittsburgh	28
14—Mich. State	41
14—Wisconsin	37

IOWA

14—Pittsburgh	26
13—Indiana	20
14—Purdue	41
13—Wisconsin	42
8—Ohio State	0
7—Minnesota	17
13—Illinois	33
33—Northwestern	14

IOWA STATE

57—S. Dakota St.	19
7—Illinois	33
0—Nebraska	16
0—Kansas	43
12—Colorado	21
0—Missouri	19
0—Oklahoma	41
56—Drake	7

JOHNS HOPKINS

13—F. and M.	19
6—Carnegie Tech.	40
25—Hamden Sydney	28
48—Susquehanna	20
0—Randolph-Macon	22
30—Swarthmore	9
32—Dickinson	14

JUNIATA

20—Westminster	27
13—Moravian	7
36—Haverford	7
10—Dickinson	8
12—Susquehanna	7
7—Grove City	30
7—Ursinus	0

KANSAS

13—Texas Christian	0
21—Santa Clara	9
21—Colorado	12
43—Iowa State	0
20—Oklahoma	42
7—So. Methodist	0
26—Kansas State	6
7—Nebraska	14
12—Okla. A. & M.	7

KANSAS STATE

21—Bradley	7
6—Cincinnati	13
7—Missouri	26
7—Nebraska	27
7—Tulsa	29
6—Oklahoma	43
0—Kansas	26
7—Wyoming	20
14—Colorado	34

KENTUCKY

6—Villanova	25
13—Mississippi	13
0—Texas A. & M.	7
7—Louisiana State	34
14—Miss. State	27
14—Cincinnati	6
29—Miami (Fla.)	0
27—Tulane	6
27—Clemson	14

LAFAYETTE

13—Bucknell	45
6—Albright	28
0—Muhlenberg	37
0—Princeton	48
0—Yale	47
7—N. Y. U.	21
6—Rutgers	14
12—Delaware	13

LEBANON VALLEY

19—Penn M. C.	7
13—Upsala	6
26—Moravian	7
25—Gettysburg	34
19—Albright	21
0—West. Maryland	26

LEHIGH

7—N. Y. U.	10
6—Delaware	7
26—Buffalo	7
15—Gettysburg	7
20—Boston U.	29
6—Bucknell	28
26—Muhlenberg	13
26—Carnegie Tech.	8

LOUISIANA STATE

14—Texas	35
20—Alabama	21
27—Rice	7
34—Kentucky	0
14—Georgia	27
0—Maryland	34
6—Mississippi	22
3—Tennessee	28
14—Miss. State	33

MAINE

13—R. I. State	0
14—Vermont	6
24—New Hampshire	7
7—Connecticut	13
62—Bates	13
1—Colby	6
14—Bowdoin	33

MARQUETTE

19—Wisconsin	42
21—Boston U.	6
37—Detroit	27
30—Arizona	7
6—Miami	0
0—Holy Cross	7
21—Miami (Ohio)	22

MARYLAND

13—Missouri	10
13—Auburn	7
28—Clemson	0
37—Georgia	7
30—Louisiana State	6
34—Boston U.	7
14—Mississippi	21

MASSACHUSETTS

39—Bates	6
13—Connecticut	26
20—Springfield	20
7—Rhode Island	26
26—Northeastern	40
6—Brandeis	9
26—New Hampshire	13
32—Tufts	0

MIAMI (FLA.)

45—V. M. I.	0
7—Alabama	21
7—Boston U.	9
41—Richmond	6
20—Marquette	6
0—Kentucky	29
0—Vanderbilt	9
35—Stetson	0

MIAMI (OHIO)		NEBRASKA		OKLAHOMA		R. P. I.	
42-Bowling Green.....	7	46-South Dakota.....	0	21-Colorado.....	21	32-Northeastern.....	0
26-Xavier.....	7	10-Maryland.....	13	49-Pittsburgh.....	20	7-Fred.....	27
55-W. Michigan.....	6	28-Oregon.....	13	49-Texas.....	20	20-Kings Point.....	33
56-Wichita.....	7	16-Iowa State.....	0	42-Kansas.....	20	26-Union.....	42
20-Ohio U.....	0	27-Kansas State.....	14	49-Kansas State.....	6	14-Rochester.....	21
27-Toledo.....	13	0-Penn State.....	10	41-Iowa State.....	0	6-Worcester Tech.....	46
22-Marquette.....	21	16-Corlondo.....	16	21-Notre Dame.....	27	12-Coast Guard Acad.....	49
27-Dayton.....	13	6-Missouri.....	10	47-Missouri.....	7	21-Norwich.....	26
		14-Kansas.....	13	OKLA. A. & M.		R. I. STATE	
		7-Minnesota.....	13	20-Arkansas.....	22	39-Northeastern.....	0
MICHIGAN		NEW HAMPSHIRE		7-Texas A. & M.....	14	0-Maine.....	13
13-Mich. State.....	27	13-Upsala.....	7	7-Houston.....	10	20-New Hampshire.....	7
7-Stanford.....	14	7-R. I. State.....	27	35-Wichita.....	21	7-Brown.....	8
28-Indiana.....	13	7-Maine.....	24	21-Detroit.....	6	26-Massachusetts.....	20
43-Northwestern.....	14	14-Springfield.....	14	21-Tulsa.....	23	40-Springfield.....	7
21-Minnesota.....	14	28-St. Lawrence.....	19	7-Kansas.....	12	55-Brooklyn College.....	26
13-Illinois.....	22	12-Connecticut.....	25	OREGON		28-Connecticut.....	26
49-Cornell.....	7	13-Massachusetts.....	26	6-U. C. L. A.....	13		
21-Purdue.....	10	23-Kent State.....	21	13-Nebraska.....	28	RICE	
MICHIGAN STATE		NEW YORK U.		20-Idaho.....	14	34-Texas Tech.....	7
27-Michigan.....	13	10-Lehigh.....	7	13-California.....	41	7-Louisiana State.....	27
17-Oregon State.....	14	20-Kings Point.....	20	0-Washington.....	49	0-U. C. L. A.....	20
48-Texas A. & M.....	6	0-Holy Cross.....	35	14-Montana.....	14	14-So. Methodist.....	21
44-Syracuse.....	7	7-Temple.....	34	6-Coll. of Pacific.....	19	7-Texas.....	20
34-Penn State.....	7	14-Lafayette.....	7	6-Wash. State.....	20	7-Wisconsin.....	21
14-Purdue.....	14	7-Boston U.....	14	21-Stanford.....	20	35-Arkansas.....	33
41-Indiana.....	3	NORTH CAROLINA				16-Texas A. & M.....	6
21-Notre Dame.....	3	7-Texas.....	28	OREGON STATE			
MIDDLEBURY		7-Wake Forest.....	9	14-Utah.....	7		
6-Wesleyan.....	33	14-Notre Dame.....	34	14-Mich. State.....	17	34-Randolph-Macon.....	19
14-Bates.....	19	14-Tennessee.....	41	28-Stanford.....	41	7-Boston College.....	14
0-Williams.....	9	7-Virginia.....	34	6-So. California.....	28	14-V. M. I.....	21
26-Tufts.....	41	27-South Carolina.....	19	20-Wash. State.....	33	20-W. and L.....	21
14-Trinity.....	26	N. C. STATE		13-Washington.....	39	6-Miami.....	41
14-Norwich.....	13	0-Geo. Washington.....	39	0-U. C. L. A.....	57	13-Wm. and Mary.....	42
19-Vermont.....	13	28-Georgia.....	49	6-Idaho.....	27	2-Virginia Tech.....	20
MINNESOTA		0-Duke.....	57	PENNSYLVANIA		19-Davidson.....	38
13-Washington.....	19	13-Florida State.....	7	7-Notre Dame.....	7	0-Virginia.....	49
13-California.....	49	6-Wake Forest.....	21	7-Dartmouth.....	0	ROCHESTER	
27-Northwestern.....	26	25-W. and L.....	14	13-Princeton.....	7	20-Kings Point.....	7
13-Illinois.....	7	6-Pittsburgh.....	48	7-Columbia.....	17	12-Williams.....	7
0-Michigan.....	21	NORWICH		7-Navy.....	7	27-Union.....	14
17-Iowa.....	7	20-Coast Guard Acad.....	41	7-Penn State.....	14	12-Vermont.....	14
14-Purdue.....	14	7-Springfield.....	34	27-Georgia.....	34	34-Oberlin.....	13
13-Nebraska.....	7	13-Colby.....	19	13-Army.....	14	33-Hamilton.....	6
MISSISSIPPI		43-Champlain.....	19			38-Allegany.....	0
54-Memphis State.....	6	26-Vermont.....	27	PENN M. C.			
13-Kentucky.....	13	26-Middlebury.....	0	6-West Chester T.....	21	RUTGERS	
10-Liberty.....	0	20-Worcester Tech.....	12	13-Adelphi.....	19	19-Muhlenberg.....	19
21-Vanderbilt.....	21	46-R. P. I.....	21	12-Drexel.....	7	19-Princeton.....	61
20-Tulane.....	14	NORTHWESTERN		7-Lebanon Valley.....	19	7-Colgate.....	13
34-Arkansas.....	7	0-So. California.....	31	22-Moravian.....	19	0-Dartmouth.....	29
28-Louisiana State.....	0	20-Vanderbilt.....	20	20-W. Maryland.....	24	19-Brown.....	7
6-Houston.....	0	26-Minnesota.....	48	20-Delaware.....	43	0-Temple.....	28
21-Maryland.....	14	23-Indiana.....	13	0-Albright.....	20	21-Lafayette.....	8
MISS. STATE		21-Ohio State.....	24	PENN STATE		6-Penn State.....	7
7-Tennessee.....	14	14-Iowa.....	39	20-Temple.....	13		
42-Arkansas St.....	14	NOTRE DAME		20-Purdue.....	20	ST. LAWRENCE	
14-N. Texas State.....	14	7-Pennsylvania.....	7	35-Wm. and Mary.....	23	20-Union.....	19
13-Kentucky.....	12	14-Texas.....	3	35-West Virginia.....	21	7-Hofstra.....	30
19-Alabama.....	44	19-Pittsburgh.....	22	10-Nebraska.....	0	49-Champlain.....	20
21-Tulane.....	34	34-Purdue.....	14	7-Mich. State.....	34	0-Alfred.....	19
49-Auburn.....	34	24-North Carolina.....	14	14-Pennsylvania.....	7	19-New Hampshire.....	28
33-Louisiana State.....	14	17-Navy.....	6	7-Syracuse.....	25	16-Army B.....	26
MISSOURI		27-Oklahoma.....	21	7-Rutgers.....	6	6-Buffalo.....	12
10-Maryland.....	13	OHIO STATE		PITTSBURGH			
14-California.....	28	33-Indiana.....	13	26-Iowa.....	14	13-Stanford.....	29
26-Kansas State.....	0	14-Purdue.....	21	20-Oklahoma.....	49	0-Tulane.....	35
7-So. Methodist.....	25	23-Wisconsin.....	14	22-Notre Dame.....	19	7-California.....	27
7-Okl. A. & M.....	14	35-Wash. State.....	8	22-Army.....	14	9-Idaho.....	7
19-Iowa State.....	0	24-Northwestern.....	21	6-West Virginia.....	16	14-Hardin-Simmons.....	14
10-Nebraska.....	6	14-Pittsburgh.....	21	28-Indiana.....	7	7-Coll. of Pacific.....	27
27-Corlondo.....	7	27-Illinois.....	7	21-Ohio State.....	14	13-Utah.....	16
7-Oklahoma.....	47	OHIO U.		48-N. C. State.....	6	SANTA CLARA	
MUHLENBERG		27-Morrill Harvey.....	6	PRINCETON		13-Stanford.....	29
19-Rutgers.....	19	7-Toledo.....	20	14-Columbia.....	0	9-Kent.....	21
42-Bucknell.....	46	0-Western Reserve.....	7	61-Rutgers.....	19	0-Tulane.....	35
37-Lafayette.....	7	27-Kent St.....	18	7-Pennsylvania.....	13	7-California.....	27
7-Albright.....	13	0-Miami (Ohio).....	20	48-Lafayette.....	0	9-Idaho.....	7
7-Gettysburg.....	32	7-W. Michigan.....	13	27-Cornell.....	0	14-Hardin-Simmons.....	14
21-Delaware.....	26	7-Cincinnati.....	41	39-Brown.....	0	7-Coll. of Pacific.....	27
13-Lehigh.....	12	33-Bowling Green.....	12	41-Harvard.....	21	13-Utah.....	16
0-F. and M.....	7	OHIO STATE		27-Yale.....	21	SOUTH CAROLINA	
NAVY		20-Morrill Harvey.....	6	PURDUE		33-Wofford.....	0
31-Yale.....	0	22-Toledo.....	20	20-Penn State.....	20	7-Army.....	28
31-Cornell.....	7	0-Western Reserve.....	7	21-Ohio State.....	14	27-Furman.....	7
14-Wm. and Mary.....	0	27-Kent St.....	18	41-Iowa.....	14	7-Duke.....	33
7-Maryland.....	38	0-Miami (Ohio).....	20	14-Notre Dame.....	26	6-Clemson.....	0
7-Pennsylvania.....	7	28-W. Michigan.....	13	40-Illinois.....	14	0-Virginia.....	14
6-Notre Dame.....	17	7-Cincinnati.....	41	7-Mich. State.....	12	25-The Citadel.....	0
16-Duke.....	6	33-Bowling Green.....	12	14-Minnesota.....	21	19-North Carolina.....	27
28-Columbia.....	0	OHIO U.		20-Nichigan.....	14	SO. CALIFORNIA	
						35-Wash. State.....	7
						31-Northwestern.....	0
						22-Army.....	0
						20-San Diego Naval.....	6
						28-Oregon State.....	6
						10-California.....	0
						54-Stanford.....	7
						33-Washington.....	0

Professional Football

NATIONAL LEAGUE CHAMPIONS

Source: National Football League.

Year	Team	Won	Lost	Tied	Pct.	Year	Team	Won	Lost	Tied	Pct.
1921	Bears (Staley's).....	10	1	1	.909	1939	New York Giants (E).....	9	1	1	.900
1922	Canton Bulldogs.....	10	0	2	1.000	1940	*Chicago Bears (W).....	8	3	0	.727
1923	Canton Bulldogs.....	11	0	1	1.000	1940	Washington Redskins (E).....	9	2	0	.818
1924	Cleveland Bulldogs.....	7	1	1	.875	1941	*Chicago Bears (W).....	10	1	0	.909
1925	Chicago Cardinals.....	11	2	1	.846	1941	New York Giants (E).....	8	3	0	.727
1926	Frankford Yellow Jackets.....	14	1	1	.933	1942	*Washington Redskins (E).....	10	1	0	.909
1927	New York Giants.....	11	1	1	.917	1942	Chicago Bears (W).....	11	0	0	1.000
1928	Providence Steamrollers.....	8	1	2	.888	1943	*Chicago Bears (W).....	8	1	1	.889
1929	Green Bay Packers.....	12	0	1	1.000	1943	Washington Redskins (E).....	6	3	1	.667
1930	Green Bay Packers.....	11	3	1	.786	1944	*Green Bay Packers (W).....	8	2	0	.800
1931	Green Bay Packers.....	12	2	0	.857	1944	New York Giants (E).....	8	1	1	.889
1932	Chicago Bears.....	7	1	6	.875	1945	*Cleveland Rams (W).....	9	1	0	.900
1933	*Chicago Bears (W).....	10	2	1	.833	1945	Washington Redskins (E).....	8	2	0	.800
1933	New York Giants (E).....	11	3	0	.786	1946	*Chicago Bears (W).....	8	2	1	.800
1934	*New York Giants (E).....	8	5	0	.615	1946	New York Giants (E).....	7	3	1	.700
1934	Chicago Bears (W).....	13	0	0	1.000	1947	*Chicago Cardinals (W).....	9	3	0	.750
1935	*Detroit Lions (W).....	7	3	2	.709	1947	Philadelphia Eagles (E).....	9	4	0	.692
1935	New York Giants (E).....	9	3	0	.750	1948	*Philadelphia Eagles (E).....	9	2	1	.818
1936	*Green Bay Packers (W).....	10	1	1	.909	1948	Chicago Cardinals (W).....	11	1	0	.917
1936	Boston Redskins (E).....	7	5	0	.587	1949	*Philadelphia Eagles (E).....	11	1	0	.917
1937	*Washington Redskins (E).....	8	3	0	.727	1949	Los Angeles Rams (W).....	8	2	2	.800
1937	Chicago Bears (W).....	9	1	1	.900	1950	*Cleveland Browns (A).....	11	2	0	.846
1938	*New York Giants (E).....	8	2	1	.800	1950	Los Angeles Rams (N).....	10	3	0	.769
1938	Green Bay Packers (W).....	8	3	0	.727	1951	*Los Angeles Rams (N).....	8	4	0	.667
1939	*Green Bay Packers (W).....	9	2	0	.818	1951	Cleveland Browns (A).....	11	1	0	.917

* Won title play-off. (W) Western Division champion. (E) Eastern Division champion. League divided into American (A) and National (N) conferences in 1950.

CHAMPIONSHIP PLAY-OFF RESULTS

1933	Chicago Bears 23, New York 21.	1943	Chicago Bears 41, Washington 21.
1934	New York 30, Chicago Bears 13.	1944	Green Bay 14, New York 7.
1935	Detroit 26, New York 7.	1945	Cleveland 15, Washington 14.
1936	Green Bay 21, Boston 6.	1946	Chicago Bears 24, New York 14.
1937	Washington 28, Chicago Bears 21.	1947	Chicago Cardinals 28, Philadelphia 21.
1938	New York 23, Green Bay Packers 17.	1948	Philadelphia 7, Chicago Cardinals 0.
1939	Green Bay 27, New York 0.	1949	Philadelphia 14, Los Angeles 0.
1940	Chicago Bears 73, Washington 0.	1950	Cleveland 30, Los Angeles 28.
1941	Chicago Bears 37, New York 9.	1951	Los Angeles 24, Cleveland 17.
1942	Washington 14, Chicago Bears 6.		

SOFTBALL

Source: Amateur Softball Association.

World Amateur Champions

MEN

1933	J. L. Gillis, Chicago, Ill.
1934	Ke-Nash-A's, Kenosha, Wis.
1935	Crimson Coaches, Toledo, Ohio
1936	Kodak Park, Rochester, N. Y.
1937	Briggs Mfg. Co., Detroit, Mich.
1938	Pohlers, Cincinnati, Ohio
1939	Carr's, Covington, Ky.
1940	Kodak Park, Rochester, N. Y.
1941	Bendix Brakes, South Bend, Ind.
1942	Deep Rock Oilers, Tulsa, Okla.
1943	Hammer Field, Fresno, Calif.
1944	Hammer Field, Fresno, Calif.
1945	Zollners, Fort Wayne, Ind.
1946	Zollners, Fort Wayne, Ind.
1947	Zollners, Fort Wayne, Ind.
1948	Briggs Beautyware, Detroit, Mich.
1949	Tip Top Tailors, Toronto, Ontario
1950	Clearwater (Fla.) Bombers
1951	Dow Chemical Co., Midland, Mich.
1952	Briggs Beautyware, Detroit, Mich.

WOMEN

1933	Great Northerns, Chicago, Ill.
1934	Hart Motors, Chicago, Ill.
1935	Bloomer Girls, Cleveland, Ohio
1936	National Mfg. Co., Cleveland, Ohio
1937	National Mfg. Co., Cleveland, Ohio
1938	J. J. Kreig's, Alameda, Calif.
1939	J. J. Kreig's, Alameda, Calif.
1940	Arizona Ramblers, Phoenix
1941	Higgins Midgets, Tulsa, Okla.
1942	Jax Maids, New Orleans, La.
1943	Jax Maids, New Orleans, La.
1944	Lind & Pomeroy, Portland, Ore.
1945	Jax Maids, New Orleans, La.
1946	Jax Maids, New Orleans, La.
1947	Jax Maids, New Orleans, La.
1948	Arizona Ramblers, Phoenix
1949	Arizona Ramblers, Phoenix
1950	Orange (Calif.) Lionettes
1951	Orange (Calif.) Lionettes
1952	Orange (Calif.) Lionettes

ARCHERY

ARCHERY goes back through song and story and classic legend to the primeval days when bows and arrows were means of obtaining food and also weapons in warfare, but the invention of gunpowder in the 14th Century brought about a complete change in the hunting field and in the ranks of war. Archery survived only as a sport. One of the oldest annual sporting events in England is the archery contest for "The Ancient Scorton Arrow" (a little silver dart) that has been held each year in Yorkshire since 1873. The tradition

of archery survived in many European countries and many tournaments were held each year until World War II obliterated them. The American Indians, of course, used the bow and arrow until guns came into their hands through early explorers and settlers. Organized archery as a sport in the United States began with the formation of a club called the United Bowmen of Philadelphia in 1828. The sport languished through the Civil War period but was revived by the formation of the National Archery Association in 1878.

1952 CHAMPIONSHIPS

Source: Lawrence E. Briggs, Secretary, National Archery Association of the United States and Mrs. Myrtle K. Miller, Teela-Wooket Archery Camp, 450 West 24th St., New York 11, N. Y.

WORLD

(At Brussels, Belgium)

	Score
Men's target—S. Andersson, Sweden.....	3,151
Women's target—Jean Lee, United States....	3,185

UNITED STATES

(At Jackson, Mich., Aug. 4-9)

Target

Men—Robert Larsen, Phoenix, Ariz.....	3,113
Women—Mrs. Ann Weber Corby, Boonton, N. J.....	3,679
Jr. boys—Bob Schafer, Kalamazoo, Mich....	3,948
Jr. girls—Lorna Price, Phoenix.....	3,424
Intermediate boys—Ronald Ockerman, Fairborn, Ohio.....	2,631
Intermediate girls—Ann Marston, Wyandotte, Mich.....	2,293
Men's crossbow—George M. Stevens, Marcella, Ark.....	2,320
Women's crossbow—Mrs. Alice Smith, Jackson, Mich.....	1,527
International Long Round—Roy Brandes, Dayton, Ohio.....	817
Hereford Round—Pauline Willard, Florence, Mass.....	845

CLOUT

Men (180 yd.)—Max Hamilton, Phoenix.....	268
Women (140)—Mrs. Ann W. Corby.....	266
Women (120)—Sylvia Wesendonk, Little Rock, Ark.....	280

WAND

	Hits
Men (100 yd.)—Ernie Lehmer, Harrisburg, Pa.....	6
Women (60)—Lila Dahl, Detroit; Pauline Willard; Florence Marston, Wyandotte, Mich. (tie).....	

TEAM

Men (96 arrows at 60 yd.)—Phoenician Archers, Phoenix (Robert Larsen, 722; Max Hamilton, 698; Mrs. Jewel Hamilton, 511; Lorna Price, 651).....	2582
Women (96 arrows at 50 yd.)—North Detroit Archers (Sharlene Skanes, 707; Laurette Young, 698; Clare Whitmarsh, 588; Lila Dahl, 573).....	2566

Flight

FREE-STYLE

Men—Charles Pierson, Cincinnati.....	624 yd. 1 ft.
Women—Mildred Miller, Milwaukee.....	395 yd.

MEN'S REGULAR STYLE

Unlimited class—Clarence Haugan, Beloit, Wis.....	503 yd. 1 ft.
80 lb.—Poa Gourley, Tulsa, Okla.....	500 yd. 2 ft.
65 lb.—Jim Felton, Cincinnati.....	531 yd. 1 ft. 6 in.
50 lb.—Paul Berry, Middletown, Ohio.....	464 yd.

WOMEN'S REGULAR STYLE

Unlimited class—Lucille Gourley, Tulsa, Okla.....	317 yd.
50 lb.—Lucille Gourley.....	332 yd. 2 ft.
35 lb.—Lucille Gourley.....	345 yd.

NATIONAL RECORDS

MEN

Event	Recordholder	Score	Year
Double York—Stan Overby.....		283-1755	1950
Single York—Stan Overby.....		139-893	1950
Double American—Stan Overby.....		143-893	1951
Single American—Stan Overby.....		180-1494	1950
International—Russ Reynolds.....		90-752	1948
100-yd. York—Larry Hughes.....		143-911	1950
80-yd. York—Russ Reynolds.....		72-434	1948
60-yd. York—Russ Reynolds.....		48-356	1947
60-yd. York—Ralph Miller.....		24-195	1935
	Pat Chambers.....	24-196	1938
	Russ Reynolds.....	24-196	1951
60-yd. American—Stan Overby.....		30-246	1950
50-yd. American—Stan Overby.....		30-258	1950
40-yd. American—Russ Reynolds.....		30-264	1949

WOMEN

Double National—Jean Lee.....	144-1138	1950
Single National—Jean Lee.....	72-574	1950
Double Columbia—		
Artie Palkowski.....	144-1196	1951
Single Columbia—Ann W. Corby.....	72-616	1952
Double American—Jean Lee.....	180-1476	1953
Single American—Jean Lee.....	90-740	1953
Hereford Round—Jean Richards.....	143-921	1949
60-yd. National—Jean Lee.....	24-202	1950
50-yd. Columbia—Ann Weber.....	24-198	1950
40-yd. Columbia—Ann Weber.....	24-198	1950
Charlotte Cashner.....	24-206	1950
30-yd. Columbia—Jean Lee*.....	24-214	1949-50
60-yd. American—Jean Lee.....	30-238	1950
50-yd. American—Jean Lee.....	30-256	1951
40-yd. American—Jean Lee.....	30-260	1950

* Also Artie Palkowski, 1951.

Clout

Men (180 yd.)—Max Hamilton.....	36-288	1951
Women (140 yd.)—Jean Richards.....	36-280	1951
Women (120 yd.)—Jean Lee.....	36-310	1951

Team

Men's club—Santa Monica.....	380-2708	1950
Women's club—United Archers.....	380-2640	1951
Men's team round (60 yd.)—Russ Reynolds.....	96-766	1948
Women's team round (60 yd.)—Jean Lee.....	96-742	1948
Women's team round (50 yd.)—Mildred Morrison.....	96-740	1950

Flight

REGULAR STYLE

	Distance	yd.	ft.	in.	
Men—Jack Stewart.....	640	0	0	0	1949
Women—Evelyn Haines.....	505	0	0	0	1950
Jr. boys—Edward Berg, Jr.....	417	0	0	0	1949
Jr. girls—Peggy Dunaway.....	427	2	9½		1947

FREE STYLE

Men—Paul Berry.....	719	2	0	0	1949
Women—Mrs. Cecil Modlin.....	575	2	0	0	1949

News and Sports Addenda

NOVEMBER, 1952

- 18 Albert Einstein declines Presidency of Israel to succeed late Chaim Weizmann.
- 19 UNESCO admits Spain to membership, despite protests.
Eisenhower supports U. S. stand against forcible repatriation of Korean war prisoners.
- 20 14 former top Communist leaders of Czechoslovakia go on trial for treason in biggest purge trials since those of 1936 in Russia.
Truman says Gov. Stevenson is leader of Democratic party.
U. N. Political Committee votes (35-2) to establish commission to look into race-segregation policies of Union of South Africa.
Scandinavian Airlines plane pioneers passenger route from Los Angeles across polar ice cap to Copenhagen in 28 hours, 7 minutes.
- 21 Julius and Ethel Rosenberg sentenced to be electrocuted in week beginning Jan. 12 as atomic spies.
- 25 George Meany chosen President of the A F of L to succeed the late William Green.
Vishinsky rejects India's truce plan.
Alger Hiss loses plea to parole board.
- DIED:** 18—Ex-Gov. A. Harry Moore, 73, of N. J.; 20—Benedetto Croce, 86; 21—William Green, 82; 21—William D. Upshaw, 86.

Eisenhower Appointments

In November 1952, President-elect Eisenhower made the following appointments:

John Foster Dulles to be Secretary of State.

George M. Humphrey, president of the M. A. Hanna Co., of Cleveland, to be Secretary of the Treasury.

Charles Erwin Wilson, president of General Motors, to be Secretary of Defense.

Herbert Brownell, Jr., former campaign manager of Thomas E. Dewey, to be Attorney General.

Gov. Douglas McKay of Oregon to be Secretary of the Interior.

Era Taft Benson, Salt Lake City marketing specialist, to be Secretary of Agriculture.

Oveta Culp Hobby to be head of the Federal Security Agency.

Arthur Summerfield to be Post Master General.

Mrs. Ivy Baker Priest to be Treasurer of the United States.

In addition, Eisenhower appointed Harold E. Stassen, to be director of the Mutual Security Administration, succeeding Averell Harriman.

FOOTBALL SCORES

of Nov. 22, 1952

(Home team is listed first)

EAST

Columbia (14); Brown (0).
Delaware (13); Bucknell (0).
Fordham (13); Syracuse (26).
Harvard (14); Yale (41).
Holy Cross (28); Temple (0).
Lafayette (7); Lehigh (14).
Pittsburgh (0); Penn State (17).
Princeton (33); Dartmouth (0).
Rutgers (27); N. Y. Univ. (14).
Villanova (51); Boston Univ. (6).

SOUTH

Alabama (27); Maryland (7).
Auburn (3); Clemson (0).
Florida (43); Miami (Fla.) (6).
Georgia Tech (30); Florida State (0).
North Carolina (0); Duke (34).
Rice (12); Texas Christian (6).
Richmond (7); Geo. Washington (29).
So. Carolina (6); W. Virginia (13).
So. Methodist (7); Baylor (7).
Tennessee (14); Kentucky (14).
Tulane (46); Louisiana College (14).
Virginia (21); Wash. & Lee (14).
William & Mary (41); N. C. State (8).

WEST

Illinois (26); Northwestern (28).
Iowa (0); Notre Dame (27).
Kansas State (0); Iowa State (27).
Michigan State (62); Marquette (13).
Missouri (20); Kansas (19).
Ohio State (27); Michigan (7).
Oklahoma (34); Nebraska (13).
Oklahoma A & M (7); Wash. State (9).
Purdue (21); Indiana (16).
Tulsa (44); Arkansas (34).
Wisconsin (21); Minnesota (21).

FAR WEST

California (26); Stanford (0).
Oregon (19); Oregon State (22).
So. California (14); U.C.L.A. (12).

Baseball Player Awards, 1952

(By the Baseball Writers' Association of America)

Most Valuable Player

AL—Bobby Shantz, Philadelphia Athletics
NL—Hank Sauer, Chicago Cubs

Most Valuable Rookie

AL—Harry Byrd, Philadelphia Athletics
NL—Joe Black, Brooklyn Dodgers

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Director, Special Libraries Association, Librarian, New York Herald Tribune

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We have endeavored to prepare the INDEX for easy use by professional researchers and the average Mr. and Mrs. Public. This goal presents many difficulties and we modestly hope we have succeeded. Where we have failed we would appreciate your help. If you cannot find anything quickly and you think it's our fault, kindly send suggestions and criticisms to:

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